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A BRIEF SUMMARY OF THE HOSPITAL FOR CONTAGIOUS DISEASES IN CRAIOVA FROM ITS FOUNDATION UNTIL 1907

Elena-Steluța DINU¹

ABSTRACT:

THE HOSPITAL FOR CONTAGIOUS DISEASES IN CRAIOVA WAS FOUNDED RATHER LATE BY THE CITY HALL, AT THE END OF THE 19TH CENTURY. UNTIL THEN THE CONTAGIOUS PATIENTS HAD BEEN TREATED IN BARACKS IMPROVISED NEAR THE FILANTROPIA HOSPITAL. AT THE BEGINNING IT FUNCTIONED IN RENTED HOUSES AND IN 1900 THE CITY HALL BUILT A PAVILION FOR THE CONTAGIOUS ON THE DOMAIN SITUATED ON ITS PROPERTY, IN BUCHAREST BARRIER, A PAVILION FOR CONTAGIOUS CHILDREN BEING ADDED IN 1907, FROM PRIVATE INITIATIVE.

KEYWORDS: CONTAGIOUS DISEASES, HOSPITAL, CRAIOVA.

The need for isolating the people who suffered from contagious diseases had been acknowledged for a long time. At the beginning of the 19th century, in 1802, in London, the *Fever-Hospital* was opened for acute contagious diseases and in 1841 the first hospital for people suffering from pulmonary tuberculosis.

In both Romanian Principalities, in the 18th century and in the first quarter of the 19th century temporary hospitals for the plague and typhoid sufferers were opened. The Divan of Wallachia General Assembly wrote in 1830 a *Regulation for Hospitals* in which, at article 48 it was established that when Eforia would dispose of sufficient funds it would build a hospital for contagious diseases, but this *Regulation* was never applied.

By the end of the 19th century more European countries noticed that it wasn't enough to separate the sick from the healthy during epidemic, that building permanent hospitals for isolating the contagious was necessary and every hospital should have enough space to separate the possible sick persons, because at any moment a fever suffering patient could develop a contagious disease. After the hospitals for children had multiplied, permanent services for isolating the patients with contagious diseases became a necessity. However, the process of organising a methodical isolation in general hospitals or in special hospitals was very slow, although it had been studied and recommended ever since the International Hygiene Congress in Paris in 1878, through the memoirs of A. Fauvel and C. Vallin, and the International Hygiene Congress in Wien, in 1887, where C.

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Bolem, Iacob Felix and S.F. Sorensen were rapporteurs. It was considered a necessary discussion point at the International Hygiene Congress in London in 1891 and at the one in Paris in 1900, during which Drovineanu presented complete arguments regarding this matter.

In 1897, only 60 from the 1703 hospitals in France provided isolation services. Germany was the only country who had founded the most numerous hospitals for isolation, small and large, so that at the beginning of the 20th century in the German Empire, every village had at least one isolation room, an isolation pavilion in general hospitals and small isolation houses in most villages.

Romania had a sanitary law which foresaw the isolation of the contagious. In 1898, this law² was completed by the obligation imposed to the Government, to the large hospitals administration, to the larger urban councils, to build hospitals for isolation for certain chronic diseases, besides those existing for the acute diseases, so that between 1895-1900, in most cities and hospitals there were locations for isolating the contagious. Some hospitals had special rooms, others had special pavilions for this. Eforia Hospitals in Bucharest and Ploiesti, Charity, the hospital for children in Iasi, Mrs. Elizabeth Hospital in Galati had pavilions for isolation as well as other 24 county and communal hospitals. The other hospitals in Romania had only one or two isolation rooms.

At the beginning of the 20th century, only 18 of the 33 state rural hospitals had isolation pavilions, in the others the isolation was secured in a separate room. In some cities, among which was Craiova, the City Hall installed a small hospital for isolation in a house adapted for this purpose.

Only two of the hospitals pertaining to the Saint Spiridon House had pavilions for isolation, the Central Military Hospital and those pertaining to the army also had pavilions for isolation.

The persons suffering from leprosy were isolated in Rachitoasa madhouse, but it did not have the best conditions at the beginning of the 20th century and it was necessary to relocate it.

Those having venereal diseases didn't require a severe isolation and were hospitalized in all hospitals.

For the people sick of granular conjunctivitis, besides the four military infirmaries for eye diseases, special pavilions were created, near Pechea and Bujor Hospitals in Covurlui county, these sick people being hospitalized in most units in a separate room.

At the beginning of the 20th century in Romania there weren't hospitals or hospital services for isolating the people who suffered from tuberculosis in an advanced stage, which could not be healed. There was no sanatorium for those suffering from early stages of pulmonary tuberculosis, which had a chance of healing.

Although a higher number of tuberculosis sufferers needed to be hospitalized, the authorities limited their actions to promoting the measures for preventing tuberculosis, which referred to improving general hygiene, getting people accustomed to cleanliness, spreading information about ways of getting infected and ways of preventing it, because the state did not have enough funds to hospitalize all the poor people suffering from tuberculosis in hospitals or in sanatoriums. Not even the German Empire, the state with the most numerous hospitals and sanatoriums, hospitalized all the people who had tuberculosis. As Robert Koch announced in the Congress for combating tuberculosis, held in London in 1901, in Germany there were 226,000 adult people sick of tuberculosis in 1900 and all the German sanatoriums together only had 5,500 beds.

² Iacob Felix. *Istoria igienei în România*, 2nd volume (Bucharest: "Carol Göbl" Graphic Arts Institute, 1902), 42-44.

The only modern hospital for isolating the contagious people in Romania was founded in Sulina, in 1894, by the Danube European Commission³.

The Hospital for Contagious Diseases in Craiova was founded by the City Hall in the autumn of 1896⁴, it had 10 beds and was supported by funds from Craiova City Hall⁵.

At the beginning, this hospital functioned in rented houses which, between 1896 -1899, belonged to Ilie Mihailescu⁶.

On 26th October 1899 the contract for renting the location where the hospital for isolating the contagious was organised expired and the mayor of Craiova announced and invited the owners who had rent houses for this purpose, to present their offer at the City Hall by 1st September 1899, at 10 o'clock in the morning. Their rental was to be established for three to five years⁷.

At the established term, the City Hall received several rental offers⁸.

The owner Ilie Mihailescu, on 1st September 1899, expressed his wish to fore long the rental contract with the City Hall. His houses were located on Sineasca Street, no.30. They contained two buildings with seven rooms, a courtyard and a garden. In one of the buildings the hospital was functioning at the time. Mihailescu requested 900 lei per month as rent, provided that the sum would be paid in one instalment in the first year of the contract and afterwards, in the following years, on semesters⁹.

Eventually, on 13th October 1899 the owner Iorgu Constantinescu offered for rent the house on Fulgului Street, no.2, having three rooms, requesting an annual rent of 300 lei¹⁰.

Before the final rent offer was received, the mayor G.I. Pessicu proposed to the communal counsellor T. Dumitrescu that, together with the M.D. and the chief engineer of the city, they should gather in a commission, to go and examine the properties offered and to give their assent to those which fulfilled the conditions required for being rented as locations for the hospital¹¹.

On 11th September 1899, the commission formed by the communal counsellor T. Dumitrescu, doctor Elie Antonini, M.D. of the city and F.Springer, chief engineer of Craiova, gathered to examine the properties of Constantin D. Streinu on Sineasca Street, no.41, Grigorie Marcu on Cantemir Street, no.57, Lache Nicolae Ion Ciungu on Craiovita Street, I. Theodorescu on Sineasca Street and Ilie Mihailescu on Sineasca Street no. 30.

The properties of Grigorie Marcu on Cantemir Street and that of Lache Nicolae Ion Ciungu on Craiovita street were not found; the houses of Constantin D. Streinu, on Sineasca street, no. 41 were being painted inside and outside, therefore they could not be used until 26th October 1899 and thus were excluded from the list.

The house of I. Theodorescu, on Sineasca street, although in good condition, with tall rooms, was not spacious enough to be used as a hospital because it had only two rooms and a vestibule, as well as two rooms and a vestibule at the basement, but at that moment it didn't have a kitchen.

³ Elena-Steluța Dinu. "Asistența spitalicească a orașului Craiova în a doua jumătate a secolului al XIX- începutul secolului XX". PhD dissertation, Babeș Bolyai University of Cluj-Napoca, 2014: 201-203.

⁴ Elena-Steluța Dinu. "Hospital in Craiova in the nineteenth century". *Research and Science Today*, Supplement 1(2014): 8.

⁵ Mihai Măldărescu, *Dare de seamă făcută Consiliului Comunal al Craiovei în ședința de la 24 februarie anul 1897* (Craiova: "Ralian and Ignat Samitca" National Printing House, 1897), 14

⁶ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 3

⁷ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 4

⁸ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 4

⁹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 14

¹⁰ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 15

¹¹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 5

Whereas the house of Ilie Mihailescu on Sineasca street, where the Hospital for contagious diseases was installed at that moment, had two buildings, the one facing the street, where the hospital was, had three rooms and the one inside the courtyard had two rooms and a vestibule, as well as a spacious kitchen, in a separate body structure, attached to the second house.

After the inspection, the commission considered that both houses belonging to Ilie Mihailescu were a fitted location for the contagious diseases hospital, provided that they were handed over in good condition and that the kitchen was provided with a cooker¹².

On the 26th September 1899, doctor Elie Bazilescu, called “the blue breaking up” doctor, after receiving another rental offer, wrote a report on a house situated in that area of the city and reached the conclusion that the house had been recently built and was unfinished, therefore, a period of at least three months had to pass by until it could be used, according to *The Regulation for construction*, and the three existing rooms were too small. If the hospital were installed in this house, a room would be used by the nurse, the other for the kitchen and the hospital “effects” and the third, the most spacious one, did not have enough volume for ventilating two sick people. Moreover, the courtyard was very small, overgrown and open to the neighbourhood where the houses, very abundant and small, were inhabited by poor workers and each family had between 2 and 7 children. The area was too crowded and insanitary, with unpaved streets and without sewing, in common courtyards and without “latrine” and the trash was spread everywhere. Because of all these factors, the house didn’t comply with the terms necessary for turning it into an isolation house for the contagious people¹³.

Complaints appeared against the owner of the houses on Sineasca street, where the hospital for contagious diseases was. Therefore, on 3rd October 1899, doctor Elie Antonini notified the mayor of Craiova that on 1st October the owner of these houses opened a tavern and even occupied two rooms, so, for the hospital remained only one room. Therefore, the contagious people could no longer be isolated and represented a danger for the healthy people around. That was why doctor Elie Antonini told the mayor that the owner Ilie Mihailescu should be sent to justice and at the same time should be forced to give away the houses from the courtyard by 26th October 1899, because the hospital could not function in that building in just one room¹⁴. Eventually, the renting contract for the estate where the hospital was supposed to function was signed on 15th October 1899 by the City Hall of Craiova and the owner Iorgu Constantinescu¹⁵.

Because the scarlet fever became more and more frequent, threatening to become epidemic in July 1900, the best way to prevent this disease was isolation, as in the case of all contagious diseases, but it couldn’t be done in proper conditions because the house on Fulgului street in which the hospital was installed, was too small and it didn’t fit the purpose, because of its location, in a crowded area of the city, as well as because of the small space it provided for the hospital.

Doctor Elie Antonini, the city M.D., knew that the City Hall of Craiova owned a domain in Bucharest barrier, on which at least three isolation pavilions for different contagious diseases could be built with little expenses. In order to achieve this objective, Antonini asked the mayor to “take the most urgent measures” on 15th July 1900¹⁶.

¹² National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 17-17 verso

¹³ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 19 verso.

¹⁴ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 20

¹⁵ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 22

¹⁶ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 46

But the Council for Hygiene in Craiova, during the meeting held on 5th July 1900, after debating the matter of scarlet fever cases which had become more frequent, voted that only the scarlet fever cases should be treated in the hospital for contagious diseases, the other people suffering from different contagious diseases being given a shack at *Filantropia Hospital*. At the same time, they demanded that the hospital doctors would be announced that the people suffering from scabies could not be sent to the Hospital for contagious diseases, but to the shack at Filantropia Hospital, and in the case scarlet fever became epidemic, they requested the city to rent another location because the three rooms of the hospital were not enough¹⁷.

Therefore, the Council for Hygiene in Craiova didn't consider necessary to build a new quarters for the hospital.

Eventually, the City Hall became aware of the necessity to build a pavilion for contagious diseases on the field located at the city outskirts, in Bucharest barrier, and in July 1900 approved the execution of this pavilion and of a place for the intendant, the servants and the kitchen of this hospital, their value reaching 17938, 90 lei for the 20 beds pavilion and 7382, 75 lei for the dwelling body structure.

The chief engineer of the city thought, on 28th July 1900, the works could be finished by 26th October 1900, when the contract of the firms hired for this purpose expired; only if they were executed by direct management and the work was began at once¹⁸.

According to the estimations of architect F. Springer in July 1900, the expenses for the construction of the pavilion for the contagious diseases reached the sum of 17938, 90 lei. In the same estimate it was mentioned that 37 wainscots were needed, made of fir planks and valuing 476, 25 lei¹⁹. Until 1st September 1900 the expenses for which the mayor had to pay, reached the sum of 6870, 60 lei²⁰.

The work was executed under direct administration by the Technical Service of Craiova and was not given to an entrepreneur. The construction materials were delivered directly from the factories and warehouses. Thus, on 29th September 1900, the chief engineer of the city gave the mayor a contract, duplicated, valuing 2202 lei, for the timber supplied by T. Raux, the owner of the sawmill in Slatina²¹. The manual labour was paid to the masons, the carpenters and to the other workers, on executed pieces, therefore there was no need to sign contracts.

Although it was necessary to open immediately the new hospital for contagious diseases, the city M.D., doctor Elie Antonini considered that on 17th November 1900 only one casualty ward was dry enough to be occupied²².

According to the minutes elaborated by the communal counsellors Th.P.Dumitrescu and Constantin Stravolea, together with Constantin C.Țapardea, chief engineer of the First District for bridges and roads and P.Radovici, chief engineer of the commune, appointed by the City Hall to run the reception of the Pavilion for contagious diseases and that of the "economat", executed by the Technical Service of Craiova, the following have been observed:

- 1) The Pavilion had 36,70 metres length and 8,70 metres width
- 2) The "Economat" had 12, 2 meters length and 10 meters width.

¹⁷ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 47

¹⁸ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 48

¹⁹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 49-49 verso

²⁰ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 57

²¹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 59

²² National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899, f. 78

Both buildings had been made from solid brick masonry and the walls had the width of a brick and were covered with sealed sheet. The highest quality material had been used for the construction and the execution of the plaster, carpentry works, etc. was also very good. The Commission suggested that the reception could be done and that each ward should have its own entrance and “latrine”. At the same time, they recommended that in the summer of 1901 the construction of the buildings necessary for the pavilion should continue and the courtyard and the garden should be surrounded by alleys and tree plantations²³.

However, the ground surrounding the buildings of the hospital for contagious diseases hadn't been levelled by 3rd December 1900 and because of that the rain water was languishing at the foundation of these buildings, making possible for damp to appear, even before being used. That was why doctor Elie Antonini asked the mayor to give urgent, strict orders on 3rd December 1900 so that this work wouldn't be neglected in the future²⁴.

Doctor Bazilescu, the physician of the hospital for contagious diseases, as well as the intendant- suburgeon A. Petrescu, reminded the M.D. of Craiova on 19th February 1902 about the necessity to enclose the hospital because the parents and the relatives of the sick people invaded the hospital at any time, thus preventing the doctors from unfolding their activity in good conditions, as they could no longer apply isolation measures. The only way in which they could be stopped from getting inside the hospital was to enclose it and equip it adequately.

The demands were motivated by the fact that between 1901-1902 the sum of 3000 lei was allocated for making improvements to this hospital²⁵.

This issue had been neglected for half a year. On 21st September 1902 the chief engineer of the city gave the mayor an estimate of 1371, 66 lei for constructing the hospital fence and on that day the chief engineer of the city announced that he had the approval for lime washing the hospital, work which had already been done²⁶.

However, the hospital still needed improvements because enclosing the hospital wasn't achieved even by 1st August 1902²⁷.

For disinfection, which was absolutely necessary to the hospital for contagious diseases, the city M.D. asked the mayor to purchase a carbolic acid atomiser and a disinfection device that costed approximately 80-90 lei²⁸.

The M.D. of the city, doctor Elie Antonini asked the mayor to approve the purchase of under linen for the twelve hospital beds and also requested that the construction works for the hospital should be done through direct management before getting the Council vote²⁹, because at that moment the hospital had many inconveniences and flaws which the doctors repeatedly presented to the city administration, but they were too occupied with other matters to pay attention to them.

On 1st May 1902 things seemed to get better as the Technical Service of the city elaborated with the M.D. a plan for transforming the hospital. This plan did not exceed the sum of 2000 lei, according to the agreement with the mayor during the elaboration of the budget project. At the

²³ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899 , f. 84 – 84 verso

²⁴ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 42/1899 , f. 85

²⁵ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 97/1902, f. 4

²⁶ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 97/1902, f. 10

²⁷ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 97/1902, f. 6

²⁸ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 97/1902, f. 8

²⁹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 97/1902, f. 9

same time the mayor of Craiova assured people that soon he was going to open a public auction for commissioning the works³⁰.

Thus, on 18th July 1903, engineer F. Springer announced the mayor of the city that for the transformation works of this hospital he received only two offers: from N. N. Frostineanu with a 5% discount under the unitary price of the estimate and the offer of entrepreneur D. Barbatescu with 0,70% discount under the unitary price of the estimate³¹.

In 1904 it was decided that the transformation of the hospital for contagious diseases should be done under the management of entrepreneur D. Barbatescu³².

On 15th June 1905, out of the initiative of the ladies in Craiova, representatives of the societies "*The Independence Hospital*" and "*The Ant*", it was decided that a Pavilion for the children sick of contagious diseases should be built at the hospital in Bucharest barrier³³.

Sofia Caneciu, as representative of these societies received thanks from the City Hall of Craiova for this initiative. Therefore, on 28th February 1906, she was announced that during the meeting on 15th June 1905, the Communal Council of Craiova gratefully welcomed the ladies' decision to build a pavilion for the children suffering from contagious diseases, on the domain belonging to the City Hall, in Bucharest barrier, where an analogue building already existed, and to offer this pavilion to Craiova in order to be used during epidemic outbreaks. During the scarlet fever between 1901-1904 the Hospital for Contagious diseases didn't dispose of enough space. In 1906 another 10 spare rooms were added, each having two beds.

After the chief of the Technical Service in Craiova together with Elena Cornetti and the chief engineer of the city went to the location and suggested the place where the pavilion had to be installed, the societies *The Independence Hospital* and *The Ant* were authorized to begin the works in order to accomplish the projected philanthropic purpose³⁴.

The hospital's furniture was completed through donations³⁵.

The opening ceremony of the Pavilion for the children suffering from contagious diseases was held on 17th June 1907, at 11 o'clock in the morning.

The representatives of the Ladies of Craiova Committee, Maria Coloni and Elena Cornetti notified the president of the Interim Commission within the City Hall of Craiova that this Pavilion, built in the previous year by the Society of the Ladies from Craiova of the "Independence no.1" Hospital and the "Ant" society, on the City Hall domain in Bucharest barrier, was remaining under the property of Craiova City Hall³⁶.

After participating at the opening ceremony of the Pavilion for contagious children organised by the ladies from Craiova, Constantin Dianu asked the president of the Interim Commission, in July 1907, to order "what was needed for the furniture stock-taking and functioning of this pavilion"³⁷, which actually happened on 4th July 1907.

³⁰ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 49/1903, f. 13.

³¹ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 104/1903, f. 1-2

³² National Archives Service of Dolj County, Craiova City Hall fund, The Technical Service, file 29/1904, f. 1.

³³ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 109/1905, f. 4.

³⁴ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 130/1906, f. 2

³⁵ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 136/1906, f. 1

³⁶ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 136/1906, f. 5

³⁷ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 136/1906, f. 5

On 31st August 1907, the city M.D., Antonini, warned the mayor that in case of cholera it was absolutely necessary that the hospital for contagious diseases owned at any moment 20 functional beds, that was why the purchase of hospital objects was urgent³⁸.

Among the doctors from this hospital, doctor Aureliu Metzulescu (1873-1948) distinguished himself, unfolding a dedicated activity within the hospital between 1906-1935³⁹.

We can conclude that the foundation of The Hospital for Contagious Diseases in Craiova was welcomed because the situation of the contagious diseases at the end of the 19th century- the beginning of the 20th century was difficult in Romania, since the caution measures had been neglected, those who became sick did not follow the prescribed diet, reaching serious complications, many of them presenting to the doctor too late. At that period of time a treatment against infections had not been discovered. However, prevention vaccination was used and specific serotherapy, although they had been experimented for a short while and a rigorous scientific methodology did not exist.

³⁸ National Archives Service of Dolj County, Craiova City Hall fund, The Administrative Service, file 136/1906, f. 27

³⁹ Mariana Leferman *et al.*, editor. *Repere spirituale românești. Un dicționar al personalităților din Dolj* (Craiova: Aius Publishing House, 2005), 206.

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MULTI-LEVEL GOVERNANCE AND SOVEREIGNTY LOSS IN THE CONTEXT OF THE EUROPEAN TREATIES

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ABSTRACT:

THE EUROPEAN GOVERNANCE IS AN EXTREMELY COMPLEX TYPE OF LEADERSHIP, WHICH INVOLVES MANY TYPES OF ACTORS AND LEVELS OF ACTION WITHIN A PROCESS THAT SIGNIFIES EVERYTHING RELATED TO THE ORGANIZATION OF POLITICS. THE MAIN LEVELS OF ACTION ARE: THE SUPRANATIONAL LEVEL, THE NATIONAL LEVEL, THE REGIONAL LEVEL, THE LOCAL LEVEL.

THE MAIN CHARACTERISTICS OF MULTI-LEVEL GOVERNANCE, WHICH FORM ITS SPHERE AND OFFER IT A MEANING, ARE: THE LACK OF HIERARCHY WITHIN THE INSTITUTIONAL ARCHITECTURE AND WITHIN THE DECISION-MAKING PROCESS AND THE DYNAMIC DISPERSION OF AUTHORITY. TWO MAIN APPROACHES RELATED TO THE IMPORTANCE OF THE NATION-STATE IN THE EQUATION OF MULTI-LEVEL GOVERNANCE DOMINATE: THE STRATEGIC-RELATIONAL APPROACH AND THE STATE CENTRIC APPROACH.

THE TRANSFORMATION OF SOVEREIGNTY IS UNDERLINED IN RELATION TO THE EFFECTS THAT THE MAIN EUROPEAN TREATIES HAVE PRODUCED FOR THE EUROPEAN STATES AND ALSO IN RELATION TO MULTI-LEVEL GOVERNANCE.

THE PRESENT ARTICLE HAS THE PURPOSE TO PRESENT MULTI-LEVEL GOVERNANCE, TO REVEAL ITS MECHANISMS AND STRUCTURES. ALSO, THE ARTICLE FOCUSES ON THE SOVEREIGNTY TRANSFER. A LINK BETWEEN MULTI-LEVEL GOVERNANCE, EUROPEAN TREATIES AND SOVEREIGNTY LOSS IS BEING ESTABLISHED AND THE ACCENT FALLS ON A PROGRESSIVE SOVEREIGNTY TRANSFER FROM THE EUROPEAN STATES TO THE EUROPEAN UNION.

KEYWORDS: MULTI-LEVEL GOVERNANCE, DECISION-MAKING PROCESS, SOVEREIGNTY, EUROPEAN TREATIES

INTRODUCTION

Taking into consideration the desire to define the concept of “european multi-level governance” and the realities that it brings on the international arena, the decisional process within the European Union and, especially, the loss of sovereignty that every European member state has experienced since its adhesion, the present article is built around a fundamental question: “Which are the main transformations that state sovereignty has to suffer?” The purpose of the present study is to underline:

- the significance of multi level governance in the European Union,

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- the part played by the main European treaties in the equation of governance,
- the aspects which lead to sovereignty loss among EU member states.

Also, the purpose of the article is to prove that there is an unbreakable connection between the existence of multi-level governance and sovereignty loss within the member states, on one side, and, on the other side, a connection between the deepening of the integration process throughout the signing of the European treaties and sovereignty.

Research questions:

- a. Which are the aspects that define multi-level governance?
- b. What is the role of the European treaties?
- c. Is there a connection between multi-level governance and sovereignty loss in the EU?
- d. For what reasons is state sovereignty being dissolved at the European Union level?

The research methodology used for the elaboration of the present article is the historical and structural analyses of the main European treaties, combined with personal considerations related to the connection between three elements: multi-level governance, European treaties and Sovereignty.

Also, the problem of European integration appears, on a secondary plan. The decision-making process has been carefully analysed and we could establish a connection between the European treaties – The Treaty of Maastricht, The Treaty of Amsterdam, The Treaty of Nice and The Treaty of Lisbon -, multi level-governance and the sovereignty transfer. Thus, the main research methods are based on:

- the analyses of processes that multi-level governance implies,
- the analyses of the progressive sovereignty loss of the EU member states in favour of supranational structures
- the complex analyses of the role that the EU treaties have played in the equation of sovereignty transfer.

Nine studies have been consulted for the elaboration of the present article. Among these studies, the most important contributions were the ones of Beate Kohler-Koch; Gary Marks; Lisbert Hooghe; Ian Bache; Matthew Flinders; Dusan Sidjanski; Adrian Liviu Ivan; Oana-Andreea Ion.

The main theme of the study is multi-level governance. Beate Kohler-Koch, Ian Bache, Matthew Flinders, Lisbert Hooghe and Gary Marks have brought irreplaceable contributions to the study of this phenomenon. Beate Kohler-Koch is the one who signs his name on a book that contains a series of works, which is an original approach of the issue of european governance. The study called *Linking EU and national governance* emphasizes the importance and the role of multi-level governance in many contexts such as:

- the functioning of the European Institutions,
- The European public sphere or national systems` adaptation to the European Union system.

The complex and wide study *Multi-level governance*, edited by Ian Bache and Matthew Flinders has been published at Oxford University Press in 2004. Among the authors who have brought their contributions to the study we can identify: Gary Marks; Lisbert Hooghe; James N. Rosenau; Bob Jessop; Guy Peters; Jan Bache; Matthew Flinders. The authors reveal that multi-level governance is both the oldest and the newest concept in the study of politics. Contrasting visions on multi-level governance mix with multi-level meta-governance and with democracy related issues. Even more, the authors present the role of multi-level governance in British politics, in the European Union, with a special accent on the influences it has had over the environmental policy, the economic policy and the regional policy. The book is extremely well structured and the concept is presented from various points of view, which makes us think that multi-level governance is a puzzle with many colours and many pieces, waiting to be resolved. Lisbert Hooghe and Gary Marks are the authors of *Multi-level governance and European integration*, a study which reveals the importance of multi-level governance: *A historical perspective*, *Multiple identities*, *Channels to Europe*, are just three of the main titles in the book. We are confronting a unique approach of the connection between multi-level governance and European integration, which follows the road to integration in Europe, in parallel with the development of multi-level governance.

Another theme of the study is the European Treaties. Francisco Aldecoa Luzarraga and Mercedes Guinea Llorente are the authors of *Europe of the future. The Lisbon Treaty*. Francisco Aldecoa Luzarraga is professor, PhD in international relations and international law, in Madrid. Mercedes Guinea Llorente teaches international relations at the Complutense University, in Madrid. The study signed by the two authors is formed of eight parts and it presents the process that led to the signing of the Lisbon Treaty and the main challenges related to the treaty. The study is impressive because it brings to the readers' attention multiple aspects related to the Lisbon Treaty, analysed from various points of view.

The third axis of the study focuses on the European integration process and the sovereignty transfer. Adrian Liviu Ivan is the author of a complex study called *The United States of Europe*. It is a book that was born out of a belief of the author according to which the European unity is a project we always have to remember, mainly because we must respect the purpose of the founders to create an European federation. The book has 16 chapters, each one presenting an important aspect of the European integration process.

Another study that was taken into account for the article is *The federalist future of Europe* by Dusan Sidjanski, a study published in 2010. The book is formed of 3 parts and 9 sections. Part I presents the European Community from its origins to the Single European Act. Part II is called *Integration and political innovation* and it contains information related to the European society and the decisional process within the Union. The last part is dedicated to the federalist future of Europe and is a picture of the European Community laid under the sign of federalism.

1. EUROPEAN MULTI-LEVEL GOVERNANCE AND POLICY CONTROL RELATED MATTERS

It is true that national governments sacrifice a part of their independent control over the internal policies by taking part at the collective decision-making process¹. Gary Marks and Lisbert Hooghe present the arguments of Andrew Moravcsik related to the collective decision-making process. The author underlines that this process brings a great contribution to the establishment of

¹ Hooghe Lisbert and Marks Gary, *Multi-level governance and European integration* (New York: Rowman and Littlefield, 2001), 2

a high degree of control of the state over its internal policy, because national governments only agree to take part to the “game” when a political coordination leads to an increased degree of control over the final results².

Gary Marks and Edgar Grande have demonstrated that multi-level governance has three important characteristics, three fundamental traits:

- ✓ The first characteristic of this type of governance is the lack of hierarchy within the institutional architecture. For Beate Kohler-Koch, the term “governance” refers to certain patterns within the equation of leadership, which vary from one state to another. The author also underlines that, in essence, governance refers to modalities in which different preferences of the citizens are being translated into political choices, to the manner in which a plurality of interests is transformed into unitary action. The essence of governance is to reach mandatory decisions, based on an authority which is constitutionally defined³.
- ✓ The second important characteristic that Marks and Grande have observed is the dynamic dispersion of authority. Situated at different levels, from territorial point of view, the actors share the decision-making competencies. It seems that multi-level governance has a dynamic character. What is the resort of this character and what is its significance? Its dynamism is given by the fact that the functions and competencies on different levels have not being and, probably, will never be precisely fixed⁴.

Two main approaches related to the part played by the nation state within the European Union exist: the state-centric approach and the strategic-relational approach.

A: The strategic-relational approach - is an approach which is mainly concerned with “the structure and strategy in different areas of the social life and, being applied to a state, it does not consider it neither an unitary political subject nor a passive instrument”⁵ but a representation of complex social relationships, multiple and interconnected.

B: The state-centric approach. There is a central assumption of the state-centric approach, according to which european integration is not a challenge for the autonomy of the member states. The ones who sustain the state-centric approach believe that state sovereignty is well preserved and even reinforced throughout the status of European Union member state. Supranational actors exist in order to help the member states facilitate the agreements between them.

2. THE TRANSFORMATION OF SOVEREIGNTY

Given the type of governance established at the European Union level, which is supranational and which reconfigures the form of expression of state sovereignty, it can be said that this reality, the transformation of the sovereignty concept is shocking: states progressively lose their identity, committing to forms of cooperation with noble purposes. Identity loss is the central element if, from one point of view, states are heading towards superior forms of cooperation, which will probably transcend the federation of states, from another point of view, a negative fact exists, related to the historical differences between states, which can endanger any

² Hooghe and Marks, *Multi-level governance*, 2

³ Kohler Koch Beate, *Linking EU and National Governance*, (New York: Oxford University Press, 2003), 13

⁴ Prisecaru Petre, *Guvernanta Uniunii Europene*, (Bucuresti: Editura Economica, 2005), 58-65

⁵ Prisecaru Petre, *Guvernanta*, 58-65

form of cooperation that seems to be functioning. There is also the matter of state interest: the interests of the European states can become radically different and the balance on the European scene can become fragile, even if the 19th century realism is not valid. The new realism that has emerged is one of the 21st century: national interest comes first and cooperation is just a mask of this interest.

Only one principle exists: national interest - even if, at the discourse level, at policy level and at the level of expression of political desires in different forms, the impression of a strong will to cooperate appears, a will which transcends any type of selfishness. Why the 21st century realism? Because the national interest is defined in terms of power. There is nothing stronger than the desire for power. In fact, things are not radically different from the realities of the 19th century, only their form of expression is different. The mask of power is a different one. Cooperation reduces autonomy and cuts the peaks of sovereignty, but it also brings peace and stability within the system.

What is the mysterious connection between governance, sovereignty and the first European treaties? The European treaties bring a drop of originality to the European Union design, to a structure that is already unique and complex.

The European Coal and Steel Community Treaty is the one which has put the basis of an extraordinary cooperation at systemic level. A dream came true: this could be a synthesis. Each state had its own point of view, but the purpose of the states was a common one, to rebuild Europe, which was devastated by wars and economically destroyed. It could not be spoken about peace neither in an absurd nor in a paradoxical manner, because it had become an essential and absolutely necessary reality after the experience of war. It is well known that the Economic Coal and Steel Community Treaty is at the origin of the existing European institutions.

The Euratom Treaty had a great importance in the period it was created. The Single European Act is a great step on the road of cooperation and the beginning of sovereignty loss within the member states. The powers of the European institutions have grown and this fact reveals one more time the sovereignty loss. A third aspect referring to uniformization and sovereignty loss is The Single Market.

The structure of the European Union, established throughout the Treaty of Maastricht, underlines the unique character of it: The European Communities, Common Foreign and Security Policy, Justice and Home Affairs. Increasing efficiency of the institutions is one of the objectives of the Maastricht Treaty. The institutions are signs of high level cooperation and a raise of their powers can only mean fragile state sovereignty, which is being abandoned in different manners.

We propose the rise of a new concept, the appearance of a new type of sovereignty, of the European states: a weak type of eroded sovereignty, called “in esentiam sovereignty”. The connection between state sovereignty and European governance is a strong one. The European treaties are only pillars on which the European governance is being built. Multi-level governance refers to a modality of political evolution within the European Union, in which the state does not have complete control over the decision-making process. Multi-level governance is a model in which competencies related to the decision-making process are being shared. Thus, the national executive loses a part of the control over the appliance of legislation.

CONCLUSIONS

The conclusions of the present study focus on two main sets of ideas: the first set of ideas is related to the European treaties, the other one to multi-level governance in the European Union. They are both connected to state sovereignty. The sets of conclusions are new elements brought by the study, because they underline the most important changes brought by the treaties and the

modality in which state sovereignty has been progressively transferred to supranational structures, in the context of multi-level governance game. Also, the study focuses on multi-level governance as a modality to redefine state sovereignty and it emphasizes the role of the strategic-relational approach, regarded as the main approach in the European Union, as the state-centric theory has lost its influence and importance. Thus, the conclusions of the study focus on the following important aspects:

- The provisions contained by the European treaties implicitly “talk” about a loss of national state sovereignty in the context of major changes that took place progressively within the European Union. The Treaty of Maastricht marked the beginning of political integration and, in the same time, brought a number of important changes in the architecture of the Union. The advancement of integration on the stage of political integration is a doubling of the process, political integration and economic integration are joined, the national state losing ground in favor of a closer relation with other states. The reality is that the state - centric approach has little compatibility with the reality of multi-level governance in the EU; but everything is done for the interest of the states, cooperation and even the very existence of the Union as a whole are only a reflection of the wishes and aspirations that state entities possess.
- As the integration progresses, the transfer of sovereignty to the Community is obvious; by the Maastricht Treaty, the following came true: European citizenship, the three pillars of cooperation in the EU; the unique currency. Thus, The Maastricht Treaty is the first step towards a stronger national sovereignty loss, although once with the treaty, the principle of subsidiarity has become fundamental and this principle takes the potency of the Community.

Very true is what Sidjanski Dusan said: (The) "Maastricht Treaty starts the irreversible process, in principle, of sharing one of the essential attributes of national sovereignty, the euro, a symbol of the sovereign"⁶The Euro-system of Central Banks and the European Central Bank were created and the single currency was established. These realities have led to a truly new phase of European integration," the pooling of monetary sovereignty of the 12 Member States"⁷These states wanted and have managed to attract on their side other European countries, considered ready to join the newly formed structure.

- The Amsterdam and Nice Treaties have particular relevance in terms of sovereignty loss, but the Lisbon Treaty is telling in this respect: eliminating EU legitimacy by citizens and states reveals the transfer of powers and responsibilities; state is no longer a reference pawn in the EU.

The influence of multi-level governance over state control is a visible one; we are talking more about a transfer of sovereignty than about a total loss. It can be said that many branches of multi-level governance do not take a lot, however, of state sovereignty: it is dispersed between different levels of authority. Because among these levels are the national governments which are fulfilling an important role, redefining sovereignty can be brought into question, and also a reconfiguration by other patterns, more permissive patterns, in order to leave place of action for more important actors in the context in which sovereignty no longer belongs exclusively to the

⁶ Sidjanski Dusan, *Viitorul federalist al Europei. Comunitatea Europeana de la origini la Tratatul de la Lisabona* (Iasi: Polirom, 2010), 237-350

⁷ Sidjanski Dusan, *Viitorul federalist*, 237-350

nation-state, national governments and parliaments. The strategic-relational approach is the approach that best folds on the real situation in the European Union, where decision-making is influenced by a variety of actors.

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STATE - CHURCH RELATIONSHIP AND RELIGIOUS CONTEXT

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ABSTRACT

WESTPHALIAN MODEL OF COOPERATION BETWEEN CHURCH AND STATE IT IS STILL FUNCTIONAL BEING STRENGTHENED BY CONSTITUTIONAL PROVISIONS, EVEN IF SECULARISM HAS BECOME MUCH STRONGER THAN BEFORE.

A FUTURE MASSIVE WORLD WAR WOULD PROBABLY NOT HAVE A RELIGIOUS MOTIVATION, BUT PARTICIPANTS WILL WITH WELL-DEFINED RELIGIOUS CHOICES, UNDERLINING THE OVERALL EFFECTS OF RELIGION.

THE RETURN TO RELIGION IT IS A SURVIVAL STRATEGY AND FOR RELIGIOUS LEADERS AN OPPORTUNITY TO ACCUMULATE POWER BY EXPLOITING HATE OR LOVE, PROMOTING VIOLENCE OR PEACE.

AFTER 1989, IN CENTRAL AND EASTERN EUROPE REFORMULATION OF STATE - CHURCH RELATIONS INVOLVES HUGE TRANSFORMATIONS.

THE ABSENCE OF STRUCTURES TO MATERIALISE THE DECLARED IMPORTANCE OF RELIGION IN FOREIGN POLICY STRIVES TO CHARACTERISE RELIGION AS "DEPENDENT" RATHER THAN A "VARIABLE" OF THE POLITICAL DECISIONS OF FOREIGN POLICY OR THERE IS A HIDDEN ISLAMIC AGENDA. IT FINDS AN ISLAMIC BASE INTERNAL MOBILISATION AND A RETURN TO CERTAIN FOREIGN POLICY CONSTANTS OF THE PAST.

KEYNOTES: WESTPHALIAN MODEL, STATE - CHURCH RELATIONS,

Contemporary conflicts major motivation regardless of their causes - political, economic, social, and cultural - cannot be analysed independently of the religious context. The religious dimension of contemporary conflicts with deep historical roots it is closely related to nationalist lode, in a perspective with apocalyptic ending generated by changing the order established by the ended war³.

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³ A regulated relationship between the Catholic Church and secular rulers was first established when Pope Calixtus II and Holy Roman Emperor Henry V sealed *the Concordat of Worms* in 1122.

In September 2013, the terrorist attack committed by Islamic organisation al-Shabaab on Westgate Mall in Nairobi it is the most significant symbol of repudiation of Western values in sub-Saharan Africa but also a sign of the role that the religious leaders play in the political games and African security. A simple comparison between the roles played by religious leaders in different places of the planet in terms of globalisation and neoliberalism rises to the surface the importance of religious leaders and religious institutions in African societies⁴.

Understanding African societies, cannot ignore the centrality of the Christian, Muslim and traditional beliefs to the security environment of the African continent, democratisation and sustainable development, the influence of international values over these societies throughout history. Increase economic changes, cultural and spiritual connection of the African continent with China, Russia, India and Brazil cannot have echoes on African religious plateau. Promoting the values of neoliberalism, globalism but the international actors are in more or less understood interdependent with the African religious vectors. The key to success in the international cooperation on the African continent depends on a decisive measure by regional religious leaders.⁵

The conflict in Mozambique become open just two years after gaining independence (1975) it is due to the geopolitics of South Africa, ends in 1992 after more than a million people lost their lives, and more than a million and a half people left their homes.

The civil war in Mozambique included a strong dimension of religious ideology with deep meanings; if at first the state has attempted suppression of religion, during the conflict its actors have turned to religion to find solutions by participating in the peace process and settling the conflict⁶.

The leading political force in Mozambique, FRELIMO⁷ tried to secularise society and abolish religion, which makes the population to legitimise rebels⁸ reunited under the RENAMO flag supporting the defence of religious freedoms.

African traditional religions in Mozambique have played a major role in the communities before the arrival of Christian missionaries (the 16th Century); thus controlled education, economic spheres, social and political cultural, religious leaders were consulted before taking important decisions on local wars. Even after coverage of the entire territory of Christian institutions promoted by the Portuguese, the traditional Mozambican African religions manifest their resistance against Portuguese colonists: Shona rebellion (1886), rebellion community Barwise (1917), Makombe revolt⁹.

To control the traditional religions, the Portuguese settlers cultivate a certain cooperation with religious leaders, especially in today's Mozambique, the Arab traders had introduced Islam before the arrival of Christianity given that Catholicism becomes an official religion.

⁴ Englebert Pierre and Kevin Dunn, *Inside African Politics*, Boulder, (CO: Lynne Rienner Publishers, 2013), 96.

⁵ Politico-military events in Southeast Europe highlights the nationalist-extremist groups tend to manipulate traditions and contexts in opposition to the values and principles of liberal democracy. After 1990, in certain political circles outside were circulated project of anti-Islamic «crusade» in the Balkans or the creation of Balkan «axis» (Belgrade-Sofia-Skopje-Athens) or Eastern and South-Eastern Europe (Belgrade, Bucharest -KIEV-Moscow). See also Patterson, Amy S., "Religion and the Rise of Africa", *The Brown Journal of World Affairs*, Vol. 21, Issue: 1, Fall 2014, Providence, 181-196.

⁶ Chingono Mark, "Religion, politics and war: Reflections on Mozambique's Civil War (1977-1992)," *African Journal of Political Science and International Relations*, Volume: 8, Issue: 2, Mar 2014, Victoria Island, 31-42.

⁷ Front for the Liberation of Mozambique – Frelimo.

⁸ Mozambique National Resistance - MNR or Renamo/Matsangaissa named after the first leader.

⁹ Ranger R., "Religious Movements and Politics in Sub-Saharan Africa," *Afr. Stud. Rev.* 29(2), 1986, 1-69.

FRELIMO official claimed that religion it is a private matter but through its political agenda of the socialist origins with Stalinist hints sought the removal of it from society; but the intention of suppressing religious attract the opposite result, as it happened throughout history, the Mozambicans coming together regardless of religious orientation under the banner of the fight for religious rights, taken over by RENAMO.¹⁰

RENAMO exploits the desire to defend religious freedom, approaching the leaders of African traditional religions, protecting the churches and mosques becoming a liberating force of good faith (*bona fide liberator*).

From the games of the two great camps, religion and war have reinforced each other; religion is justifying and legitimising war, and war is strengthening the power of religious leaders¹¹. During the war, it's established that there are too many churches, some led by false prophets it is noticing a resurgence of religion either as an instrument of colonial domination or as a form of protest against settlers.

The return to religion it is a survival strategy and for religious leaders an opportunity to accumulate power by exploiting hate or love, promoting violence or peace. The Catholic Church begins to lose ground against the Protestant; Pentecostal churches simultaneously with the rise of the traditional neo-religions, but the major sense is heading towards Pentecostal churches.

In the case of Mozambique conflict, many religious leaders have helped to settle the conflict and the peace process (neo-traditionalists according to their beliefs by performing certain rituals, Christians through prayers, Mafora missionaries through forgiveness and tolerance). Neo-traditionalists are considered drought (mid-tenth century) as a punishment for the bloodshed, calling for an end to violence while the Catholic Church substantial gets involvement in opening the negotiations FRELIMO - RENAMO which concludes the Agreement to cease fire of Rome in 1992.

Interventions of various religions in favour of the peace process demonstrated through the conclusion of the civil war in Mozambique that the relation religion - peace - war it is extremely complex, trying to abolish religion is impossible if not equivalent to suicide especially that the revival of religion was achieved in socio-economic condition particularly difficult, the lack of confidence in leaders, leaving their homes. One opinion¹² considers that religion cannot play a positive role in a civil war because it doesn't have the necessary force to change the situation, just possibly to mystify the reality often with reactionary objectives.

Religious ideology provides the moral basis for the formation of a community identity or to oppose domination or war or for its justification. In the case of the civil war in Mozambique religious intolerance was not a central part of it but an option anti (FRELIMO) and pro (RENAMO) religion, report that allowed the display of religious ideology and as a factor of the continuation and legitimacy of the conflict. The existence of a variety of religions has complicated the situation further. FRELIMO final intention to abolish religion led to the rebirth of the religious phenomenon, people return to church.

Religious ideology in the civil war in Mozambique located in various situations - FRELIMO wanting its abolition, mobilisation strategy for RENAMO, the survival strategy for population -

¹⁰ Berkley Center, *Mozambique: Religious Peacebuilders Broker End to Civil War*, (Washington DC: Georgetown University, 2013), 13-32.

¹¹ Chingono Mark, "Religion, politics and war: Reflections on Mozambique's Civil War (1977-1992)," *African Journal of Political Science and International Relations*, Volume: 8, Issue: 2, Mar 2014, Victoria Island, 31-42.

¹² Roesch O., "Peasants, War and Tradition in Central Mozambique", paper presented at a Symposium, *Symbols of Change: Transregional Culture and Local Practice in Southern Africa*, Free University of Berlin, 1993.

was rechecked as a political force particularly influential in the conflicts case and not only through its positive or negative roles.

A secularised Europe it is seen as a counter to the religious wars (are taken into account extreme forms - Nazism, fascism and racial extermination). A future massive world war would probably not have a religious motivation, but participants will with well-defined religious choices, underlining the overall effects of religion.

The Treaty of Westphalia (1648) stipulates that the territory religious choice it is decided by the head of the territory over which it had recognised jurisdiction; the idea of religious freedom is non-existent. An unclear period ends with mutual recognition of equal status between Protestantism and Catholicism¹³. In the Lutheran space¹⁴, the ratio between church and state is regulated through secular constitution while the Catholic spaces prevail concordat with Rome. Subsequently, confessionalism is connected to the territorial sovereignty of the state until the "Age of Enlightenment" that places religion as a personal matter protected by the constitution¹⁵. As a feature of reinforcements state's role in international relations is the connection with the church closely linked to nationalism.

In the European landscape, three areas are outlined: Lutheran in the North, Catholic in the South and Orthodox in the East, places accompanied by several multi-confessional state.

The institutionalisation of the church in France it is strongly contested in the "Age of Enlightenment".

In 1901, Napoleon concluded a concordat with the Vatican which it secures coexistence of confessions, after a period of persecution against the Catholic Church and Monotheism; In 1880, anti-clerical Republicans break diplomatic relations between France and the Vatican and in 1905 the secular status of the French state it is supported by law which institutionalises the separation of church and state and the privatisation of religion. This moment it is considered the starting point of the emergence of modern national states¹⁶.

In 1870, Pope Pius IX declared "Papal Infallibility" and 1874 it allows believers to engage in political activities, starting point for the birth of political parties based on religion, especially where Catholicism is becoming a symbol of oppression of national culture (Ireland, Poland and Croatia) the subsequent emergence of the Catholic nationalist ideologies (Franco regime in Spain)¹⁷.

The conflict between church and state, in the case of the multi-confessional states (Germany, the Netherlands and Switzerland) subsists in the contradiction between Catholics loyal to the Vatican and commands nationalism. Between 1871 and 1978, Germany limits the influence of Catholic in education and society stipulating the separation of church and state.

Westphalian model of cooperation between church and state it is still functional being strengthened by constitutional provisions, even if secularism has become much stronger than before.

¹³ *The Peace of Augsburg in 1555* was a crucial turning point in this conflict as Protestantism and Catholicism became of equal status.

¹⁴ The reform theologians John Calvin, Huldrych Zwingli and Martin Luther criticized the political influence of the popes, condemning their wealth and their violent rejection of dissenters.

¹⁵ Anja Hennig, "Between Conflict and Cooperation: Religion and Politics in Europe", *Palestine - Israel Journal of Politics, Economics, and Culture*, Vol. 20/21, Issue: 4/1, 2015, East Jerusalem, 121-128.

¹⁶ John Madeley, Religion and the Modern State, in: Jeff Haynes (ed.), *The Politics of Religion*, London, 2006, 60.

¹⁷ Kjell Å. Mødeér, "Public and Private, a Moving Border", in: Silvio Ferrari/Sabrina Pastorelli (eds.), *Religion in Public Spaces*, Farnham 2012, 27.

In the Habsburg and Tsar Empire, the Roman Catholic Church and the Russian Orthodox Church played an important role in the relationship between religion and politics by setting up the two empires as “state-church”, with a deep involvement in the conduct of WWI. The way it was involved in supporting the lead of empires in the conduct of war it brought a serious loss of authority. The Catholic Church took a more reserved attitude in formulating politico-religious objectives to mobilise the resources of multitude nations with different confession while the Russian Church followed the Tsar line, both options resulting in loss of prestige among believers.

The vision of American civil religion, tributary bases on Judeo-Christian related to political principles building values for which the sacrifice it is worthy. According to Abraham Lincoln, the appeal to religion it is important for divine purposes of America and alert of divine judgement for moral errors. WW II it is considered from a political and academic view as a "just war" necessary to fight evil (even if there was the Pearl Harbor episode, bombing campaigns from Europe and the Pacific, the two nuclear bombs dropped on the Japanese cities).

The history of the Cold War hadn't paid sufficient attention to the role of religion in analysing the causes of the conflict, “ignoring God” when it treated the early times of the Cold War when the Americans perceived it as being primarily spiritual. Religion was the cause and the instrument of the Cold War; there is a “theological diplomacy” that united Americans in their opposition to communist atheism. American Protestant leaders have treated the Cold War as a spiritual conflict while seculars (Harry Truman and Dwight D. Eisenhower) have put into practice this perception¹⁸. American Protestantism failed to overcome the rift between them and Catholics nor a religious alliance against the communist threat.

President Truman to the achieve political objectives depict moral obligations in a religious perspective; President Reagan demonises enemy states while the American nation is the good nation, ignoring the war in Vietnam; President Carter proposed the recognition of an error by the American nation if committed; however, the experience of war in Vietnam was invoked in the 2004 presidential campaign. For President Bush, the wars in Afghanistan and Iraq through their high degree of violence it was not allowed to make them compatible with a moral vision. President Obama's promise, after the massive withdrawal from Iraq and Afghanistan, for the USA to become a force of good was rewarded with the Nobel Peace Prize¹⁹.

USA Presidents Bush and Obama include in the documents of national security religion as a moral factor for the members of society both in peacetime and in wartime²⁰. It states that the recognition of common values and common interests it is accompanied by avoiding transformation of religious difference in the hot topics²¹. In President Obama's vision religion plays a major role in shaping the behaviour of American citizens and religious freedom it is a universal right.²²

In the view of an author, throughout the America history there is a certain sense of fear of persecution combined with conspiracy abundantly exploited by political vectors up to the

¹⁸ Lahr, Angela M., "Religion and American Foreign Policy, 1945-1960: The Soul of Containment," *Journal of Church and State*, Volume: 53, Issue: 4, Autumn 2011, Oxford University Press, Oxford, pp. 682-683.

¹⁹ Raymond Haberski Jr., *God and War: American Civil Religion since 1945*, By New Brunswick, NJ: Rutgers University Press, 2012.

²⁰ Casey Lucius, "Religion and the National Security Strategy," *Journal of Church and State*, Volume: 55, Issue: 1, Winter 2013, Oxford University Press, 50-70.

²¹ Barack Obama, "Remarks by the President on National Security" (speech, Washington DC, White House, May 21, 2009), www.whitehouse.gov/the_press_office/Remarks-by-the-President-On-National-Security-5-2109/, (accessed on 3 January 2016).

²² Carolyn M. Warner and Stephen G. Walker, "Thinking About the Role of Religion in Foreign Policy: A Framework for Analysis," *Foreign Policy Analysis* 7 (2011): 125.

“paranoia” level. In 1947, the Catholic organisation “Blue Army of Our Lady of Fatima”²³ is created to save humanity from the prophesied disasters; the emergence of this organisation is rapidly represented in USA political class during the Cold War by transforming Russia into Satan and by focusing a propaganda to perceive this state as the enemy. This political propaganda movement based on pathology paranoia schemes aimed to develop a religious fundamentalism with pronounced political objectives.²⁴

The religious component of the Cold War it is of a substantial signification in the West-East conflict, being present in Korean issue, the situation of Muslims in the USSR, the case of the two Germans churches, in institutionalised atheism and not only, including practically all peoples and nations.²⁵

Modernity, in the view of some authors, the declining religions; however, the support for anti-Communist movements in Poland by the Vatican, Islamic Revolution in Iran (1979), the 9/11 terrorist attacks, protests in France against homosexuality (2013) imposed religion as a political instrument in the public opinion sphere. The heated debate on artificial insemination, the use of stem cells, bioethics councils, fundamental issues concerning the right to life and death calls for a statutory regulation.

After 1989, in Central and Eastern Europe reformulation of state - church relations involves huge transformations. Islam as a new political phenomenon it is a particularly hot subject; they are considered as foreigners, their right to wear the burqa in public being disputed.

The State - church relationship characterised by ongoing conflicts throughout history, due to the decline of religiosity in Europe is a satellite in the privileged position of the Church in society, due to fear of radical Islam. Religion has become more important in European politics.

The emergence and development of religions in African space determine the societal configurations and the specific causes of tensions, crises, conflicts and intracontinental wars.

Starting from the ninth century, Islam penetrates through West of the continent gradually and consistently, so in fourteen century contain the Indian Ocean coasts, including Egypt, the Horn of Africa stretching until Nigeria. In the nineteenth century, African Islam it is comprised of reform movements and manages even the birth of a Sokoto Caliphate, as a form of government²⁶.

In the nineteenth century, it can speak of Christianity institutions on the African continent, after the great powers divided the continent into colonies, although the missionary phenomenon precedes them with more than two centuries. The impact of Christianity is so impressive that 24% of Christians live in Africa²⁷.

The two religions draw near certain components of traditional African religions²⁸ achieving significant influence and legitimacy in African societies, especially that the African religious leaders can mobilise large masses of citizens from participating in terrorist organisations and democratic activities. More prominently it is highlighted the idea that Africa it is the centre of

²³ The Blue Army of Our Lady of Fatima.

²⁴ Bennett, Jeffrey S., "The Blue Army and the Red Scare: Politics, Religion, and Cold War Paranoia", *Politics, Religion & Ideology*, Vol. 16, Issue 2-3, 2015, Taylor & Francis Ltd., Abingdon.

²⁵ Philip E. Muehlenbeck (ed.), *Religion and the Cold War: A Global Perspective*, Nashville, TN: Vanderbilt University Press, 2012.

²⁶ Robinson David, *Muslim Societies in African History*, New York: Cambridge University Press, 2004, pp. 3-7.

²⁷ Ellis Stephen and Gerrie ter Haar, *Worlds of Power: Religious Thought and Political Practice in Africa*, London: Oxford University Press, 1998.

²⁸ African Traditional Religions – ATRs.

radical Islamic activities (Mali, the Islamic Movement for Azawad, Al- Shabaab, Boko Haram, MUJAO)²⁹.

The African religious institutions - both Islamic and Christian, after the release of European colonialism are an important vector in the “second liberation” (in Malawi, Zambia, Senegal, Mozambique)³⁰.

After refusing entry in the Preamble of the European Constitutional Treaty for “Judeo - Christian heritage”, the great challenge of current times it is the acceptance of Islam as part of European identity.

If between 1960 and 1970, secularisation has a word to say against religion imposing a marginal position, in the contemporary landscape, can be seen that religion came from private space becoming a participant in policy decisions, conflicts and competitions. Europe's population it is perceived as the different relationship with religion based on the ground of religion to which it is affiliated, the representation of politico-religious, but in its great majority is concerned about the role of Islam in its relation, both on the principles of democracy and the freedoms, including the issue of blasphemy³¹. There is a critical mass regarding the public roles of religious actors in relation to the fundamental political issues relating to democracy, democratisation and civil liberties.

The existence of Muslim Europeans as normal has echoes in the political plans, a certain fear of Islamist extremism it is an incontestable reality. The tendency to promote profanity against Islam have generated intense debate, though many Europeans do not realise the serious meaning for Muslims to “right to denigrate”³² the most sacred elements of Islam, not considering that it is a sacrosanct democratic right³³.

Religion played an important role during the Cold War in the West-East confrontation, the religious subject being the centrepiece of ideological polemics, based on the institutionalisation of atheism in the service of communism. The role of ethnic, religious minorities in Greece, Bulgaria and Turkey stressed the importance of religious freedom disregarded from the interests of international players in the balance of power in the Cold War, becoming vectors of manipulation to obtain political advantages by undermining the cohesion of the Eastern bloc³⁴.

Western missionary, in particular, the American ones during the Cold War focused on promoting religion as an ideological alternative to communism (the case of Koreans and Chinese prisoners retrain by Americans).

²⁹ Mouvement pour le Tawhîd et du Jihad en Afrique de l'Ouest, or, in English, Movement for Oneness and Jihad in West Africa.

³⁰ Gellar Sheldon, “Beyond Islamists and Sufi Brotherhoods: Liberal Varieties of Islam in Africa and the Struggle for Tolerance and Democracy,” in *Religious Ideas and Institutions: Transitions to Democracy in Africa*, ed. FU.mond Keller and Ruth Iyob, Pretoria, South Africa: UNISA Press, 2012.

³¹ Russian Orthodox Patriarchate tends, sometimes, to expand the authority - or primacy - and its relations with the Churches in Ukraine and the Caucasus, pretending to want what monk Filotei said, contemporary of Basil III (father of Ivan the Terrible) in a report to the grand Prince of Russia “Moscow is the successor of the great capitals of the world: first - ancient Rome, the second - Constantinople, Moscow - third Rome, and Rome will be the fourth.” See Jeffrey Haynes, “Religion, Democracy and Civil Liberties: Theoretical Perspectives and Empirical Ramifications,” *European Political Science: EPS*, Volume: 12, Issue: 2 Jun 2013 Palgrave Macmillan, Basingstoke, 171-183.

³² Salman Rushdie's Satanic Verses (1989) and the Danish cartoons imbroglio (2005). Bilefsky, D. (2006) 'Death toll mounts in rioting over cartoons', *International Herald Tribune*, 8 February. Available at: <http://www.iht.com/articles/2006/02/07/news/islam.php>, (accessed 14 January 2016).

³³ Jeffrey Haynes, *Transnational Religions and Soft Power*, Aldershot, Ashgate, 2012.

³⁴ Muehlenbeck Philip E. (Ed.), *Religion and the Cold War: A Global Perspective*, (Nashville, TN: Vanderbilt University Press, 2012), 12.

In 1992, is the year when the USSR begin liquidation religion, vision denied by other authors who say that actions against religion have not been carried out, example is the Communist Party position towards Islam, but imposing the condition to participate in building a stable society³⁵.

“In the Russian Federation, although it expressed its opinion that Panslavism alternative lost some of its shape, the tendency to strengthen the position of the Russian Orthodox Church it is evident, both by the entry into force of the 1997 Law on Association for Freedom of Conscience and Religion (offering for the future the permission to increase its role externally as well) and by the Church’s actions. After the failure suffered to prevent the establishment of the Metropolis of Bessarabia under canonical subordination of the Romanian Orthodox Church - following the judgement given by the European Court of Human Rights - Russian Patriarchate practice messages outside the canonical limits.”³⁶

A special case of the conflict between state and religion is Tajikistan, one of five Central Asian countries with a Sunni majority population. After the antireligious campaign carried by the States authorities, it follows a phase of confrontation of religious groups, questioning the secular character of the state. Between 1992 and 1997, Tajikistan sinking into a civil war with significant consequences for a population of seven million inhabitants: around 100,000 dead and 800,000 people fleeing their homes.³⁷

After the disappearance of the Soviet Union, Tajikistan was declared secular state although it shares its power with the Islamic forces; In fact, the state authorities continue the Soviet practices to eliminate religion from society based on animosity but also promoting religious independence which develops an extensive and accelerated Islamization process of the society including the social and political levels. The political tensions linked to the secular state and religion option continues; the religious group perceives the secular state as being an anti-religious state while the opponent group wanted to avoid Tajikistan to become a religious state³⁸. Through negotiations, it reaches a compromise³⁹, by separating the state and religion, although governmental authorities reiterated that political Islam had become a potential rival supported by the traditional Islam which it is highly respected and influential amongst the population.

A number of Islamic religious groups⁴⁰ in Tajikistan advocates a return to Islamic ordinances for the seventh century, for the establishment of the Islamic Caliphate⁴¹, creating religious tension among the population; in many cases, religious leaders’ positions were stronger than government

³⁵ "Religion played a significant role in determining the scope and stratagems of the global Cold War, but it was a factor in the Cold War, not the factor." See Muehlenbeck Philip E. (Ed.), *Religion and the Cold War: A Global Perspective*, (Nashville, TN: Vanderbilt University Press, 2012), 158.

³⁶ Kirill, Metropolitan of Smolensk and Kaliningrad, declares in Chisinau: „We consider the creation of so-called Metropolitan Church of Bessarabia in Moldova as a schism Church,” having „only one explanation, and it is marked by sin. This may be not a church opportunity, not the salvation of men, but about a policy, thus creating a serious precedent.” His Holiness Kirill said that the schism idea comes from Romania, calling the clergy and society not to frequent the Metropolitan Church of Bessarabia holy places, because its creation have not respected the canons and "if church rules are violated in such a manner, the violators will suffer because of this.”

³⁷ The General Agreement on the Establishment of Peace and National Accord. See Akiner Shirin, "Prospects for Civil Society in Tajikistan," in *Civil Society in the Muslim World: Contemporary Perspectives*, ed. Aryn B. Sajoo, (London and New York: I. B. Tauris, 2002), 160.

³⁸ Hakim Zainiddinov, "The Changing Relationship of the Secularized State to Religion in Tajikistan," *Journal of Church and State*, Volume:55, Issue:3, Summer 2013, Oxford University Press, Oxford, 456-477.

³⁹ *The Constitution of the Republic of Tajikistan and the Law on Freedom of Conscience and Religious Associations*

⁴⁰ Jamaati Tabligh, Hizb ut-Tahrir, Salafiya, and Bayat.

⁴¹ Karagiannis, "The Challenge of Radical Islam in Tajikistan," *Asia Plus*, March 2, 2010, <http://news.tj/en/news/irpt-criticizes-poll>, (accessed on 5 January 2016).

orders⁴², their power being able to paralyse Tajikistan society but also to support governments in the implementation of large economic projects.

The secular component of the Tajikistan society still believes that Islam cannot be alien to radicalisation, deaf to the needs of reforming society, opting for the Islamic state and not to strengthen the foundations of the national state. On the other hand, the religious component is aware of the antagonism in its political representation and the principles of the secular state, the secular and religious balance being particularly fragile.

In general, state - religion relations are seen from the perspectives of communist secularism, Islam is considered a remnant of feudalism, a political force to be controlled. The principle of separation of church and state is interpreted and implemented by the Tajikistani authorities by removing religion from social life. From religion's point of view, religion is part of Tajikistan society, and Islam was artificially separate from the state; forcing the elimination of religion from society can lead to the formation of radical Islamic groups, the transformation of moderate Islam in an extreme form.

Tajik secular state can promote policies on religion following models both from the Muslim world and the West, according to the balance of power in society and models considered.⁴³

The anti-religious actions carried out in Vietnam brought disservice to legitimacy on power for the authorities of South Vietnam and in Iraq the anti-communist propaganda by exploiting the Muslim sentiments being appreciated that it had the wrong formula bringing disservices to the political goals.

In a case of a roundtable between Palestinians and Israelis regarding secularism, both sides reiterate that the views on statehood in the area in question, the problem is addressed from a secular perspective. Moreover, Palestinians highlights the difference between the Palestinian National Movement⁴⁴ and the Palestinian Arab nationalist movements based on the options of all these movements for secularism, which imposes a distinction between religion and nationalism. The movement is Muslims, Christians and also the Jewish, any interpretation of a religious option is very dangerous⁴⁵.

Turkey under the precepts of "soft power," "activism" declaim religion as a component of its foreign policy, mainly in its neighbourhood - Middle East - promoting the replacement of "circle of enemies" phrase with "circle of friends" phrase, although its relations with Israel have deteriorated, the installation of NATO facilities and the emergence of tensions related to this with to the neighbours, the unexpected "Arab Spring," involving forces in Syria and Iraq contradict these statements.

Moreover, the absence of structures to materialise the declared importance of religion in foreign policy strives to characterise religion as "dependent" rather than a "variable" of the political decisions of foreign policy or there is a hidden Islamic agenda. It finds an Islamic base internal mobilisation and a return to certain foreign policy constants of the past.

⁴² Niyazi, "Islam and Tajikistan's Human and Ecological Crisis" in *Civil Society in Central Asia*, ed. M. Holt Ruffin and Daniel C. Waugh, (Seattle: Center for Civil Society International, 1999), 189-90.

⁴³ Yaacov Ro'i, "Islam in the FSU-An Inevitable Impediment to Democracy?" in *Democracy and Pluralism in Muslim Eurasia*, ed. Yaacov Ro'i, (London and New York: Frank Cass, 2004), 102.

⁴⁴ The Palestinian national movement.

⁴⁵ [...] the biggest danger we are facing at the moment is turning the national conflict between Israelis and Palestinians into a religious war between Judaism and Islam. Schenker, Hillel, "Religion and the Conflict", *Palestine - Israel Journal of Politics, Economics, and Culture*, Volume: 20/21, Issue: 4/1, 2015, Middle East Publications, East Jerusalem, 129-144.

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NUCLEAR SAFETY AND P-5 GLOSSARY

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ABSTRACT:

MECHANISMS FOR THE DISARMAMENT OF THE UNITED NATIONS NECESSARY TO ENSURE PEACE AND GLOBAL SECURITY ARE SEIZED: NO STUDIES HAVE BEEN COMPLETED; THERE ARE NO PLANS OF ACTION OR PROSPECTS FOR LAUNCHING NEGOTIATIONS ON THE KEY ISSUES CONCERNING NUCLEAR NON-PROLIFERATION AND STRATEGIC PERSPECTIVE ON DISARMAMENT.

THE 2010 NPT REVIEW CONFERENCE SETS 64 GOALS COMBINED IN AN ACTION PLAN FOR ALL SIGNATORIES' STATES TO THE AGREEMENT; THE 2015 CONFERENCE NOTES THAT NO SIGNIFICANT PROGRESS HAS BEEN MADE IN THEIR IMPLEMENTATION.

THE 2015 REVCON ACHIEVEMENTS ARE ASSESSED AS INSUFFICIENT; ONLY THE INITIATIVE FOCUSED ON THE HUMANITARIAN IMPACT OF NUCLEAR WEAPONS IS THE MOST IMPORTANT ACHIEVEMENT NOT COVERING THE LACK OF PROGRESS IN IMPLEMENTING THE ACTION PLAN 2010.

THE DIALOGUE IN "P-5 PROCESS" FORMAT IS NOT TRANSLATED INTO CONCRETE STEPS TOWARDS NUCLEAR DISARMAMENT, IN THE CONCRETE COMMITMENTS RELATED TO REGIONAL AND GLOBAL STABILITY REGARDING THE DEVELOPMENT OF THEIR NUCLEAR AND CONVENTIONAL WEAPONS SYSTEMS.

APPLYING THE PRINCIPLE OF TRANSPARENCY BY THE P-5 IS FAR FROM NNWS EXPECTATION, AND THE NGOS, A SITUATION UNDERLINED AND PRESSED IN REVCON 2015. IN TURN, NWS CONSIDERS THAT GREATER TRANSPARENCY WOULD JEOPARDIZE SAFETY AND PROTECTION OF NUCLEAR MATERIALS AND WARHEADS AND THE CREDIBILITY CAPACITY TO DISCOURAGE NWS.

THE FORMAT OF "P-5 PROCESS" COULD BE IMPROVED BY DEVELOPING ITS "P-5 + 2 PROCESS" BY INVITING INDIA AND PAKISTAN TO PARTICIPATE IN STRATEGIC STABILITY.

KEYWORDS: DISARMAMENT, THE ACTION PLAN 2010, P-5 PROCESS, P-5 GLOSSARY

The challenge of creating a world free of nuclear weapons (NFWW)¹ continues to be a chimera as long as political leaders are too interested in nuclear weapons and very little on disarming².

Mechanisms for the disarmament of the United Nations³ necessary to ensure peace and global security are seized: no studies have been completed; there are no plans of action or prospects

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¹ A nuclear weapons free world (NFWW).

² SIPRI, *SIPRI launches world nuclear forces data*, 16th June 2014, www.sipri.org, (Accessed 3 December 2015).

³ Conference on Disarmament (CD) and the UN Disarmament Commission (UNDC).

for launching negotiations on the key issues concerning nuclear non-proliferation and strategic perspective on disarmament.

Immediately after the Cold War, the two nuclear superpowers - the USA and the Russian Federation - have shown willingness to reduce nuclear warheads through radical measures which, unfortunately, did not continue after 2000 to comply with the provisions of art. VI of the NPT regarding the reducing of the nuclear stockpile and even disarmament. The nuclear warheads stocks remain under a cloud; the role of nuclear weapons it continues to be recognized in the doctrines of major powers simultaneously with the modernization of nuclear weapons⁴.

The conventional balance of power net favorable to the USA allows the USA to maintain its global military domination, reality favorable to nuclear disarmament. On the other hand, a nuclear disarmament without USA conventional disarmament measures to eliminate potential threat of military strikes could not be accepted by Russia and China⁵.

The situation of other states that possesses nuclear weapons - India, Pakistan, Israel, and North Korea - remains unregulated by NPT. Also, the NNWS community carries out sustained and substantial that NWS fails to fulfill their obligations stated in NPT.

In 2008, USA signed a nuclear agreement with India, a non-signatory to the NPT, in the view of some states as a compromise to the non-proliferation policy with profound effects on regional balance.

THE DISARMAMENT AND NON-PROLIFERATION DOSSIER

The NPT⁶ review conferences have adopted a series of measures towards disarmament and non-proliferation, considered by many NNWS as insufficient.

Between 2013 and 2014, there are three ad-hoc conferences on the provisions of NPT art. VI centered on the theme of the humanitarian consequences of the use of nuclear weapons, by switching from national security to human security, emphasizing NWS⁷ responsibility.

Within the upward trend of the emergence of new reactors⁸, China aims to build 4-6 reactors per year, such as the 25 existing in their possession, another 25 are under construction⁹.

Starting from 2015 to USA conduct in the NATO member states - Belgium, Netherlands, Germany, Italy and Turkey - around 200 nuclear weapons will substantially strengthen the nuclear capabilities of this organization generating a nuclear arms race with Russia¹⁰.

The 2010 NPT Review Conference sets 64 goals combined in an action plan for all signatories' states to the agreement; The 2015 Conference notes that no significant progress has been made in their implementation.

⁴ Arbatov Alexey, *The P5 Process - Prospects for Enhancement*, January 2015, www.deepcuts.org, (Accessed 3 December 2015).

⁵ Primakov, Yevgeny, Moiseyev, Mikhail, Ivanov, Igor and Velikhov, Evgeny, *Start a new disarmament plan*, 22nd October 2010, www.in.rbth.com. (Accessed 3 January 2016).

⁶ Vezi e.g. lucrările 2010 NPT Review Conference (RevCon).

⁷ 158 countries took part in the last one, held in Vienna in December 2014.

⁸ 75% of new reactors worldwide are to be built in non-OECD (Organisation for Economic Co-operation and Development) countries.

⁹ *Hualong-I*, it is a third generation (Gen-III) reactor and has been developed for the global export market. Among the beneficiaries – Pakistan (two reactors *Hualong-I*), Argentina, Iran and the UK. See *UK-China Nuclear Security*, MacArthur Foundation, London, 28 July 2015.

¹⁰ Kristensen, Hans, *General Confirms Enhanced Targeting Capabilities of B61-12 Nuclear Bomb*, 23rd January 2014, www.fas.org. (Accessed 3 January 2016).

The 2015 NPT Review Conference notes that a number of 124 have agreements with IAEA in force of which 23 agreements made after 2010 NPT¹¹. Regarding NPT art. VI is requested that NWS fulfill their obligations under the NPT and conferences in 2000 and 2010, respectively “13 practical steps” and the action plan for nuclear disarmament.

They have reiterated the principles of transparency, verification and irreversibility implementation of NWS obligation accruing from NPT; there is a concern despite the reductions stipulated through unilateral and bilateral agreements there is a large number of nuclear weapons developed and in deposits contrary to Art. VI NPT that requires not their reduction but the irreversible elimination of nuclear weapons¹². A dangerous tendency is the production of new types of nuclear weapons by the NNWS and improving the specification of existing nuclear weapons systems by NWS.

Although the principle of transparency is viewed differently by NWS, it is indispensable for reductions of the nuclear arsenals, RevCon 2000 is considered as the starting point of taking into account the principle of transparency as a major dimension of implementing the provisions of NPT art. VI transposed in the “13 practical steps”¹³. Subsequently, the NWS it is engaging to take appropriate action in accordance with the transparency principle - publishing information on their nuclear arsenals, unilateral declarations regarding nuclear production (Russia less), about the amount of plutonium it possesses (as required by IAEA INFCIRC/549).

USA and Russia make available data about the nuclear arsenal and nuclear materials according to START and New START agreements and conclude agreements relating to the purchase of enriched uranium (HEU) and plutonium management¹⁴.

The Civil war in Ukraine imposes an increased attention on the nuclear dimension of the relations between NATO and Russia significantly escalated by the rhetoric nuclear threats, including the potentiality deployment of nuclear weapons on NATO's eastern flank simultaneously with the revision of the nuclear arms control agreements. The eventual escalation of USA-Russian nuclear balance in Central and Eastern Europe attracts the risk of nuclear incident, a situation that must be avoided through negotiations and practical measures¹⁵

¹¹ 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, NPT/CONF.2015/R.3, 21 May 2015, 4.

¹² 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, NPT/CONF.2015/R.3, 21 May 2015, 15.

¹³ “Increased transparency by the nuclear weapon states with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI.”

¹⁴ Siegel Jonas, *Expanding Nuclear Weapons State Transparency to Strengthen Nonproliferation*, CISSM Working Paper, Center for International and Security Studies at Maryland, School of Public Policy, University of Maryland, March 2015, 3.

¹⁵ One possible option could be to review the status of – and possible new issues for – the Nuclear Risk Reduction Centers (set up in 1987) and the U.S.-Russia Strategic Stability Talks. See Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, April 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), pp. 12-13, www.deepcuts.org. (Accessed 9 January 2016).

In accordance with the obligations under art. VI of the NPT,¹⁶ incumbent NATO regarding NSNW that it could be more transparent about them and discuss with Russia about measures to increase mutual trust¹⁷.

USA and Russia hold at least 90% of the 16,000 nuclear weapons in the world, having the primary responsibility in the efforts for global nuclear disarmament, reductions their arsenals stimulating the multilateral disarmament negotiations in the NPT format, engaging the third party NWS to similar steps. The arsenals reductions can be negotiated in a multilateral format¹⁸.

If the principle of transparency has specific meanings for each NWS, measures for the implementation of this principle knows different ways to achieve it; the publication of some nuclear information seeks to provide data to understand better the reality of nuclear, intention and eliminate misunderstandings on a variety of levels - for states, international organisations, and civil society. On the other hand, nuclear information is made public in order to intimidate the other states.

The limited application of the transparency principle is through the presentation of intergovernmental data structures, under the IAEA agreements on nuclear safety, or the other states under the arms control agreements signed. The NPT success depends on ensuring the transparency of non-proliferation by increasing mutual trust by respecting the NPT members obligation through - statements, monitoring, allowing inspections at nuclear facilities certifying that does not develop nuclear weapons - a significant role being played by relations that should be drawn by NNWS in accordance with the agreements concluded with IAEA on nuclear safety¹⁹.

The 2015 RevCon achievements are assessed as insufficient; only the initiative focused on the humanitarian impact of nuclear weapons²⁰ is the most important achievement not covering the lack of progress in implementing the Action Plan 2010.

P-5 FORMAT

In the period 1996-2002, IAEA together with USA and Russia have launched the “trilateral initiative” in order to establish a verification system under the IAEA aegis of nuclear warheads and their components, according to art. VI NPT concluded with a “Model Verification Agreement”²¹ taking into account to respect of the national security sensitive information on the

¹⁶ Article VI of the NPT commits all States Parties, including the five officially recognized nuclear weapons possessors, “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.”

¹⁷ Non-strategic nuclear weapons – NSNW. NATO should complete formulation by 2016 of its overdue proposal for achieving non-strategic nuclear weapons transparency and accountability and invite Russia to join the United States in discussions on non-strategic nuclear weapons confidence-building measures, which is part of their NPT Article VI obligations. See Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, April 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), pp. 12-13, www.deepcuts.org. (Accessed 11 January 2016).

¹⁸ In 2013, President Obama proposed negotiated cuts with Russia of deployed strategic nuclear weapons by up to one-third below the limits in the New START Treaty.

¹⁹ Siegel Jonas, *Expanding Nuclear Weapons State Transparency to Strengthen Nonproliferation*, CISSM Working Paper, Center for International and Security Studies at Maryland, School of Public Policy, University of Maryland, March 2015.

²⁰ “The Conference notes the growing interest during the 2010-2015 review cycle on, non-nuclear-weapon States parties in the humanitarian impact of nuclear weapons,” Oslo (March 2013), Nayarit (February 2014) and Vienna (December 2014).

²¹ The Model Verification Agreement.

nuclear dossier. The model agreement is available to any NWS to start negotiations with IAEA in order to establish an agency to monitor information related to nuclear material.

In 2001, Russia proposed “to institute and commence a permanently operating consultation process on the problems of strategic stability within the Five”²² due to concerns related to a number of unfavorable developments, the proposal being perceived as coming from Soviet times especially that the post-Soviet transition enhances the perception the USA is the only global leader²³.

In 2008, the UK Defense Secretary²⁴ highlights the interest in the development of verification mechanisms transparent and irreversible in accordance with the NPT and in line with the France interests to reduce their nuclear arsenals, too small to compare with those of the nuclear superpowers, but also for future upgrades of the nuclear weapons infrastructure²⁵ provided that the USA will carry an impressive program to modernise the nuclear arsenal²⁶.

In 2009, the UK proposed the “P-5 process”. In the “P-5 process” it is discussed response issues in “case of nuclear accident”²⁷. China’s interest being for “preventing nuclear accident” as well. Based on the obligations of states to provide security information and the quantity of nuclear weapons and materials their annex provided for by Security Council Resolution 1540²⁸, in the attention of P-5 it imposes the necessity of a standard format for reporting the compliance of these obligations by setting up working group for nuclear safety and including in the glossary of terms the terminology related to the security of nuclear materials²⁹.

In 2014, P-5 agreed with the common reporting framework under France’s aegis. NWS meeting seeks to coordinate positions and actions of these states in regards to disarmament; although constituted for some time the results are disappointing. The only achievement considered is the common reporting framework regarding military doctrines changes, the stock of nuclear material

²² “to institute and commence a permanently operating consultation process on the problems of strategic stability within the Five.” See Yakovenko Alexander, *Russian P5 Initiative*, July-August 2001, www.acronym.org.uk. (Accessed 13 January 2016).

²³ See Rumer Eugene B., *Russian Foreign Policy Beyond Putin*, 2007, London: Routledge; Trenin, Dmitri, “Russian Perspective on the Global Elimination of Nuclear Weapons” in Blechman Barry (ed.), *Russia and the United States*, 2009, Washington: Henry L. Stimson Center, 14-17.

²⁴ UK Defense Secretary Des Browne announced that the UK was “willing to host a technical conference of P5 nuclear laboratories on the verification of nuclear disarmament before the next NPT Review Conference in 2010”. See Browne Des, *Speech by Des Browne to the Conference on Nuclear Disarmament*, 5th February 2008, www2.labour.org.uk. (Accessed 13 January 2016).

²⁵ For the purpose of suspicion that the reduction actually pursues modernization, see, Acheson, Ray (ed.), *Assuring Destruction Forever: Nuclear Weapon Modernization Around the World*, 2012, www.reachingcriticalwill.org. (Accessed 13 January 2016).; Burt Peter, Anglo-French nuclear co-operation and the ‘Teutates’ programme, (Reading: Nuclear Information Service), 2010; Norton-Taylor Richard, *Exclusive: UK to step up collaboration with US over nuclear warheads*, 12th June 2014, www.theguardian.com. (Accessed 13 January 2016).

²⁶ Wolfstahl J.B, Lewis, J. & Quint M., *The One Trillion Dollar Triad - US Strategic Nuclear Modernization over the Next Thirty Years*, 2014, Monterey: James Martin Center for Nonproliferation Studies. Obama’s 2009 Prague speech, in which he stated “America’s commitment to seek the peace and security of a world without nuclear weapons” is evaporated... Obama, Barack, Remarks by President Barack Obama, 5th April 2009, www.whitehouse.gov. (Accessed 15 January 2016). See Street Tim, *Analysis: The P5 Process If we want a nuclear weapons free world then we need to change the rules of the game*, British American Security Information Council, February 2015, 3.

²⁷ P-5 meetings after 2010 NPT Revcon, Paris (2011), Washington I (2012), Geneva (2013), Beijing (2014) and London (2015). The 2016 meeting takes place in Paris.

²⁸ UNSCR 1540.

²⁹ Committee on the U.S. – Chinese Glossary of Nuclear Security Terms, “*English – Chinese, Chinese – English, Nuclear Security Glossary*,” Washington, DC and Beijing: National Academies Press and Atomic Energy Press, 2008.

disarmament. But this common reporting framework it is not generalized due to China's position which expressed some reservations about the nuclear arsenal values³⁰.

In London in February 2015, the Joint Declaration of the sixth "P5 Process" Conference stands for strengthening the NPT³¹. The seven conference cycle (the seventh shall be held in France) in order to improve dialogue, transparency and a common perspective for strengthening the NPT. However, the doctrinal reality is less favorable in increasing confidence and transparency claimed by the conference³².

The dialogue in "P-5 Process" format is not translated into concrete steps towards nuclear disarmament, in the concrete commitments related to regional and global stability regarding the development of their nuclear and conventional weapons systems³³.

Britain, France and China made a unilateral commitment not to increase its own nuclear arsenal only if USA and Russia continue with the reductions of nuclear weapons. If the case of these nuclear powers a greater transparency on their nuclear arsenals, issuing official statements to increase the number of nuclear weapons in the endowment, the adoption of bilateral measures to increase the mutual trust of the kind provided for USA and Russia in the New START agreement.

Applying the principle of transparency by the P-5 is far from NNWS expectation, and the NGOs, a situation underlined and pressed in RevCon 2015³⁴. In turn, NWS considers that greater transparency would jeopardize safety and protection of nuclear materials and warheads and the credibility capacity to discourage NWS.

Nuclear transparency means the presentation of data which previously was not available regarding the production and use of nuclear materials and technology, as a measure to increase trust³⁵, but with different perceptions depending on the position of each state. Transparency can be a way for some state to obtain advantages at the expense of other states; some states support a greater nuclear transparency; others support it only to highlight the hesitation of other countries in this regard.

It is proposed that NWS to make statements on the number of nuclear weapons, independently or in/with the support of the "P-5 Process" format in order to increase nuclear transparency, supported by verification procedures on all bearings - production, facilities, nuclear

³⁰ Alcaro Riccardo, *Reviewing the Non-Proliferation and Disarmament Regimes*, IAI Working Papers 15-16, May 2015, Istituto Affari Internazionali (IAI).

³¹ a "consensual, balanced outcome to the 2015 review Conference, which would do much to enhance the P5's continuing efforts to strengthen the NPT," "Joint Statement from the Nuclear-Weapon States at the London P5 Conference" of February 6, 2015. See Fitzgerald David and David Ryan, *2014 Obama, US Foreign Policy and the Dilemmas of Intervention*, London: Palgrave Macmillan.

³² 2012 "Deterrence and Defense Policy Review" stated that "Nuclear weapons are a core component of NATO's overall capabilities for deterrence and defense along-side conventional and missile defense." Russia's military doctrine 2015, reiterated its reliance on nuclear weapons. China has long stated that it would not be the first to use nuclear weapons, but its own military doctrine remains opaque. Both Russia and China are strongly opposed to any U.S. moves to deploy ballistic missile defenses in Eastern Europe and Asia. See Grinius Marius, *The Nuclear Non-Proliferation Regime: Will It Survive?* The Canadian Defence & Foreign Affairs Institute April, 2015.

³³ Among other commitments, that Action Plan called on the five states to "accelerate concrete progress on the steps leading to nuclear disarmament." *2010 NPT Review Conference Action Plan*.

³⁴ "Increased Transparency in the Disarmament Process," a working paper submitted by the members of the Non-Proliferation and Disarmament Initiative to the 2014 Preparatory Committee Meeting for the 2015 NPT Review Conference, March 19, 2014, NPT/CONF.2015/PC.III/WP.10.

³⁵ For "greater predictability with regard to the intentions and capabilities of states, thus facilitating mutual understanding, easing tensions, and reducing misperceptions." Nicholas Zarimpas (ed.), *Transparency in Nuclear Warheads and Materials: The Political and Technical Dimensions* (Oxford, UK: Oxford University Press, 2003), 7.

warheads, etc. - so that it becomes irreversible. Such a process not to be deprived of a verification system, including monitoring techniques.

In the disarmament field, P-5 focuses on how the Nuclear Safety supports this process, being necessary procedures to verify the process of eliminating nuclear material for reducing the risk of theft or sabotage.³⁶

P-5 GLOSSARY

In 2011, the five states possessive of nuclear weapons (P -5) began with the obligations of the NPT³⁷ setting up a "Working Group"³⁸ to achieve a glossary of key nuclear terms, to increase mutual trust and facilitate discussions with NPT states non-possessive of nuclear weapons. Initiative based on "step-by-step" treatment based on the consensus that is materialised in 227 terms and organized in six chapters³⁹. "P-5 Glossary" will be reviewed and improved, including NNWS and the civil society participation⁴⁰.

The section devoted to non-proliferation of the P-5 glossary is organized in four groups of definitions: (1) legal instruments and other documents relating to non-proliferation and IAEA safeguards; (2) IAEA Safeguards; (3) the evaluation standards of nuclear material; (4) Verification, monitoring and inspection⁴¹.

Legal instruments and other documents relating to non-proliferation and safeguards IAEA presents definitions on which was agreed following negotiations so⁴²,

Additional Protocol (according to the Model Additional Protocol INFCIRC 540) a security agreement is concluded between state/group of states with the IAEA; when safety agreement is comprehensive together with Additional Protocol, it covers all INFCIRC provisions. If a security agreement is concluded voluntarily (INFCIRC - 66) then the Additional Protocol contains only clauses approved by the state concerned⁴³.

The Comprehensive Safeguards Agreement (CSA)⁴⁴ applies to all declared nuclear materials and activities or ought to be declared by a state. Categories: CSA concluded under the art. III.1

³⁶ Roth Nickolas, *International Cooperation to Secure Military Nuclear Materials*, The 8th INMM/ESARDA Joint Workshop, October 4-7, 2015.

³⁷ Nuclear Non-Proliferation Treaty (NPT), Action 5 "Further enhance transparency and increase mutual confidence" called for in *the Final Document of the 2010 NPT Review Conference*.

³⁸ Meeting - Beijing on 27-28 September 2012, 26-27 September 2013 and 10-11 September 2014. See P5 Working Group on the Glossary of Key Nuclear Terms, *P5 Glossary of Key Nuclear Terms*, Beijing: China Atomic Energy Press, April 2015, <http://www.pircenter.org/media/content/files/13/14313989580.pdf>. (Accessed 17 January 2016).

³⁹ Nuclear Arms Control and Disarmament, Nuclear Testing and Monitoring, Production of Nuclear Material, Nuclear Non-proliferation, Nuclear Energy, and Nuclear Safety and Security.

⁴⁰ Statement by the People's Republic of China, France, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America to the 2015 Treaty on the Non-Proliferation of Nuclear Weapons Review Conference.

⁴¹ Legal Instruments and Other Documents Related to Nuclear Non-Proliferation and IAEA Safeguards; IAEA Safeguards; Nuclear Material Accounting; Verification, Monitoring and Inspection.

⁴² *P5 Glossary of Key Nuclear Terms*, Legal Instruments and Other Documents Related to Nuclear Non-Proliferation and IAEA Safeguards, 52-80.

⁴³ *P5 Glossary of Key Nuclear Terms*, Beijing: China Atomic Energy Press, April 2015, <http://www.pircenter.org/media/content/files/13/14313989580.pdf>, p. 52. (Accessed 20 January 2016).

⁴⁴ Comprehensive (full scope) safeguards agreement (CSA). *P5 Glossary of Key Nuclear Terms*, 54-55.

NPT⁴⁵, CSA concluded with a state member of the Tlatelolco Treaty⁴⁶ or a treaty of the nuclear weapons free zone⁴⁷, CSA concluded between IAEA and Albania⁴⁸.

IAEA⁴⁹ safeguards system represents the system of measures according to Art. III.A.5 and art. XII of the Statute of the IAEA was taken by agreement of the State concerned and the IAEA.

The nuclear supplier group guidelines⁵⁰ it includes export policies and practices, the peaceful transfer of nuclear material to NNWS organized in two parts: the first related to “trigger list” and a second part related to material of dual use⁵¹.

The revised supplementary agreement related to safeguards⁵² may be concluded under an existing security agreement to request technical assistance through or from IAEA for sensitive technologies provided in Annex of INFCIRC -267.

The safeguards agreement⁵³ to apply the safety measures established by a State with IAEA by participation, in some cases the regional or bilateral inspectorates (EURATOM, ABACC) due to certain requirements arising or at the request of the State regarding the guarantees that it can provide to another state.

The statute of the International Atomic Energy Agency (IAEA)⁵⁴ of which the glossary highlights the importance of technical assistance - art. II;⁵⁵ establish safety management measures on verification agreements - art. III.A.5;⁵⁶ rights and responsibilities for the implementation and respect of nuclear safety standards - art.XII⁵⁷.

Subsidiary arrangements are made based on INFCIRC 153 regarding technical and administrative procedures necessary to implement the security agreements, being structured in a general part and attachment for each nuclear facility⁵⁸.

The protocol of suspension of a security agreement⁵⁹ through which the agreed measures are stopped.

⁴⁵ The IAEA's right and obligation to ensure that safe-guards are applied “on all source or special fissionable material in all peace full nuclear activities with in the territory of the State, under its jurisdiction, or carried out under its control anywhere...” (INFCIRC/153, para. 2)

⁴⁶ Tlatelolco Treaty.

⁴⁷ The nuclear-weapon-free-zone (NWFZ) treat.

⁴⁸ Signed by Albania, IAEA, Argentina and ABACC.

⁴⁹ IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 58.

⁵⁰ Nuclear Suppliers Group Guidelines. IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 59.

⁵¹ See INFCIRC254, Parts 1 and 2 and INFCIRC-322.

⁵² Revised supplementary agreement relevant to safeguards. IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 64.

⁵³ Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 66.

⁵⁴ Statute of the International Atomic Energy Agency - IAEA.

⁵⁵ “Seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such away as to further any military purpose.”

⁵⁶ “Establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made available by the Agency or at its request or under its supervision or control are not used in such away as to further any military purse; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or at the request of a State, to any of that State’s activities in the field of atomic energy”.

⁵⁷ Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 67-68.

⁵⁸ Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 70.

⁵⁹ Suspension Protocol. Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 73.

The agreement offered voluntary⁶⁰ proposed by NWS inspired by certain provisions of INFCIRC 153 under the NPT, which could cause them disadvantages. All 5 NWS have concluded such agreements.

The voluntary reporting scheme⁶¹ inspired by Annex II of INFCIRC 540 is done through the exchange of letters with the IAEA.

The Committee Guidelines for Exports Zangger⁶² established under Art. III.2 NPT for the export of nuclear material for peaceful purposes to NNWS. Although is not an IAEA structure the guide provision are contained in INFCIRC 209.

Regarding safety regulations, it contains a number of important definitions from which guarantees are particularly important⁶³.

The assurance of the absence of undeclared nuclear material and activities⁶⁴ that it supported by a state signatory to the Comprehensive Safeguards Agreement (CSA) and an additional protocol, both in force, starting point for evaluation and verification carry out by IAEA.

The evaluation standards of nuclear material concerning ways of establishing the material subject to evaluation; supervision measures, international evaluation standards; changes in nuclear inventory; establishment goods; material situation on locations; periodic situations⁶⁵.

The verification procedures, monitoring and inspection refers to the measurement of radiation, inspections, inspection of the inspection form; environmental analysis; verification of certain goods; passive measurement; radiation detection equipment; random inspections; remote checks; significant quantity; simultaneous inspections; special inspections; environmental sampling; unannounced inspections; ways of identifying⁶⁶.

From the point of view of international law, the terms contained therein "P-5 Glossary" have no legal meaning, cannot be opposed by other terms in other documents of international law or domestic law⁶⁷. Furthermore, the terms are not relevant to the possible use of these terms and meanings of future international law documents or other international instruments.

⁶⁰ Voluntary offer agreement – VOA. *P5 Glossary of Key Nuclear Terms*, 74.

⁶¹ Voluntary reporting scheme on nuclear material and specified equipment and non-nuclear material. *P5 Glossary of Key Nuclear Terms*, 76.

⁶² Zangger Committee Export Guidelines. *P5 Glossary of Key Nuclear Terms*, 78.

⁶³ In the section regarding safety regulation are defined: Assurance of non-diversion of nuclear material; Coverage of IAEA safeguards; de-exemption; essential equipment list (EEL); exemption; integrated safeguards; location outside facilities (LOF); Safeguards Criteria; starting point of IAEA safeguards; suspension of IAEA safeguards; termination of IAEA safeguards. *P5 Glossary of Key Nuclear Terms*, 80-101.

⁶⁴ Assurance of the absence of undeclared nuclear material and activities. *P5 Glossary of Key Nuclear Terms*, 80.

⁶⁵ Account balance, book inventory of a material balance area; containment/surveillance measures (C/S measures), international standards of accountancy; inventory change of nuclear material; inventory of nuclear material; item counting; material balance area (MBA); material balance period (MBP); material unaccounted for (MUF); nuclear material accounting; physical inventory verification (PIV); shipper/receiver difference (SRD); state system of accounting for and control of nuclear material (SSAC). *P5 Glossary of Key Nuclear Terms*, 101-131.

⁶⁶ Active measurement; ad hoc inspection; continuous inspection; design information verification (DIV); environmental sampling (ES); exhibition; passive measurement; radiation detection equipment (RDE); random inspection; remote monitoring; significant quantity (SQ); simultaneous inspections; special inspection; swipe sampling; unannounced inspection; unique identifier. *P5 Glossary of Key Nuclear Terms*, 133-155.

⁶⁷ See *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (Vienna, Austria: International Atomic Energy Agency, 2011), http://www-pub.iaea.org/MTCD/publications/PDF/Pub1481_web.pdf. (Accessed 25 January 2016).

Initiate procedures for establishing standards of nuclear safety and security for the NWS could be valuable activate for "P-5 Process"⁶⁸.

The format of "P-5 process" could be improved by developing its "P-5 + 2 process" by inviting India and Pakistan to participate in strategic stability⁶⁹.

The minor progression of the "P-5 process" can be considered as the expression of the unwillingness of big powers to change the current state of affairs including maintaining the threat of using force as a transformative factor in international relations⁷⁰.

⁶⁸ Exchange of best practices on emergency response, including discussion of the kind of international cooperation that this could require (e.g., in the event of an accidental detonation). Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, Aprilie 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), www.deepcuts.org. (Accessed 3 January 2016).

⁶⁹ "To give new momentum to a Fissile Material Cut-Off Treaty (FMCT)." Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, Aprilie 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), www.deepcuts.org. (Accessed 3 January 2016).

⁷⁰ Street Tim, *Analysis: The P5 Process If we want a nuclear weapons free world then we need to change the rules of the game*, British American Security Information Council, February 2015.

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THE NEW CALIPHATE - A WAR OF ALL AGAINST ALL

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ABSTRACT

THE STATUS OF MIDDLE EAST CONFLICT, THE SYRIAN CIVIL WAR, THE ACTIONS OF THE ISLAMIC STATE OF IRAQ AND SYRIA (ISIS) SELF-DECLARED CALIPHATE, CONSTITUTE AN ISSUE OF SIGNIFICANT IMPORTANCE, THAT AROUSES INTEREST AMONG THE PUBLIC, GIVEN THAT DEVELOPMENTS IN THE AREA, TENDS TO HAVE GREAT INFLUENCES ON A WORLDWIDE LEVEL.

CALIPHATE IT IS A FORM OF ISLAMIC GOVERNMENT WHICH REPRESENTS THE POLITICAL AND RELIGIOUS UNITY OF THE MUSLIM WORLD, HAS AS A LEADER THE CALIPH, THE POLITICAL LEADER OF THE MUSLIM COMMUNITY WHICH IS CONSIDERED THE "SUCCESSOR", "DEPUTY" OF PROPHET MUHAMMAD.

THE APPEARANCE IN THE MIDDLE EAST OF A NEW SUNNI FUNDAMENTALIST STATE, WITHOUT BORDERS, EXPANDING, SEEMINGLY IMPOSSIBLE TO STOP, CAN BE EXPLAINED BY THE VERY BIOGRAPHY OF THE LAST DECADE OF ITS LEADER, ABU BAKR AL-BAGHDADI.

THERE IS NO QUESTION OF LAMENTING THE DISAPPEARANCE OF SOME SUCCESSFUL INSTITUTIONS FROM THE HISTORY OF ISLAM, BUT THE ABSENCE OF A CENTRALIZED AUTHORITY, LEAVES A COMMUNITY OF NEARLY 1.4 BILLION PEOPLE, A FIFTH OF THE WORLD POPULATION, IN DRIFT AND VULNERABILITY.

KEYWORDS: MIDDLE EAST, CONFLICT, CALIPHATE, FUNDAMENTALIST STATE,

The benefits brought by the 20s century in the Middle East, in terms of institutional and economic development, had the effect to highlighting some religious sensitivities. Should not be surprised by the fact that at present region is marked by an imbalance caused by reactions of religious nature. After nearly a century after Mustafa Kemal Atatürk abolished the Caliphate in Istanbul and six decades since Gamal Abdel Nasser and the Ba'th Party led a national revolution in Egypt and the Arab world, the Middle East it is in a full religious conflict, having in the centre a caliphate that comprises territories in Syria and Iraq.

It has been proven that in this way that the big progress made towards the construction and development of the state led to the emergence of religious sensibilities while removing and loosening authorities that could moderate the religions in a more responsible way. As a result, the region is witnessing a fierce religious and unbalanced reaction. It is rather difficult to understand

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how a religious tradition which for a millennium has been a “global refuge for pluralism, tolerance and moderation, was undermined by intolerance, brutality and beheadings.”³

The status of Middle East conflict, the Syrian Civil War, the actions of the Islamic State of Iraq and Syria (ISIS) self-declared caliphate, constitute an issue of significant importance, that arouses interest among the public, given that developments in the area, tends to have great influences on a worldwide level. Understanding the implications of the “games” in the area requires a brief introduction in the magazine of the overview of the history of the conflict, its evolution, and the religious reasons which determining this bitterness.

Although apparently it seems to be a simple civil war in which “the rebels have taken up weapons against the dictator Bashar al-Assad in 2011 and since then fought against him,”⁴ an in-depth study of the phenomenon reveals a more complex reality. A detailed analysis demonstrates that it can talk about “a war of all against all,”⁵ whose actors constitutes a number of approximately 1,000 groups, brigades and factions, only some of them of significant importance.

The fight it is waged, on the side by the Syrian regime led by President Bashar al- Assad, who currently controls the most populated regions in the country, on the other side by ISIS and other groups that fight against or alongside one of the main forces mentioned previously.

It is considered the initiator of the conflict in Syria it is Bashar al-Assad that from the desire not to have the same fate as the leaders of the authoritarian regimes in Tunisia, Egypt and Libya,⁶ fights back in 2011 against the Arab Spring demonstrators by opening fire on them⁷. Subsequently, the protesters and part of the Syrian troops decide to fight against the Assad regime, this is the moment when the Syrian Liberation Army arises. In this way are created all the premises to manifest a true civil war, represented on the one hand by rebel forces, both from inside Syria and those from outside who come to their aid, and, on the other hand, the official regime

Bashar al Assad takes advantage of the condition created and prefers to give the conflict a religious tint such burst, releasing jihadists’ prisoners who joined the rebels, bringing on them accusations of extremism. Through this strategy, it actually aims to mislead the foreign rebel supporters (mainly the Arab states). Assad in turn, benefits from the Iran serious support and subsequently the Lebanese support trough Hezbollah.⁸

The main opponent, and the most frightening element of terror in the area it is the Sunni organization ISIS who announced the reinstatement of the Muslim world state abolished in 1924 by Turkish nationalist Kemal Ataturk, the father of modern Turkey. A council of the movement chose Abu Bakr al Baghdadi, the terrorist chief of the ISIS (formerly ISIL), according to the

³ Paul Salem, *The Caliph's Revenge*, Middle East Institute, 9 septembrie 2015 <http://www.mei.edu/content/article/caliphs-reveng>, (accessed on 16 January 2016).

⁴ Lucian Popescu, “Games of Trones” in Syria. Small guide to understand a chaotic war,” *Aktual 24*, 10 Mars 2015, <http://www.aktual24.ro/urzeala-tronurilor-in-siria-mic-ghid-pentru-a-intelega-un-razboi-haotic>, (accessed on 6 January 2016).

⁵ Popescu, “Games of Trones” in Syria

⁶ “New Syrian Opposition Pushes for Recognition,” *Hürriyet Daily News*, November 13, 2012, http://www.hurriyetaidailynews.com/new-syrian-opposition-pushes-for-recognition.aspx?pageID=238&nid_3452 4, (accessed on 16 January 2016).

⁷ BBC News (2014) “Syria Crisis: Where Key Countries Stand.” BBC News, 18 February. <http://www.bbc.com/news/world-middle-east-23849587>, (accessed on 10 January 2016).

⁸ Tom Perry si Laila Bassam, “With help from his allies, Syria's Assad looks set to stay,” in *Reuters Edition US 10 martie 2015* pe <http://www.reuters.com/article/us-mideast-crisis-syria-outlook-idUSKBN0M616X20150310> (accessed on 16 January 2016).

“Caliph of the Muslims,” as the successor of the prophet Mohammed, decided to rename it the “Islamic State” and called all Islamist movements to recognise the primacy.⁹

Caliphate is a form of Islamic government which represents the political and religious unity of the Muslim world, has as a leader the Caliph, the political leader of the Muslim community which is considered the “successor”, “deputy” of Prophet Muhammad. In the Sunni tradition, he is a member of the Quraysh tribe, and in the Shiite it is an Imam descendant of Ahlul Bayt.

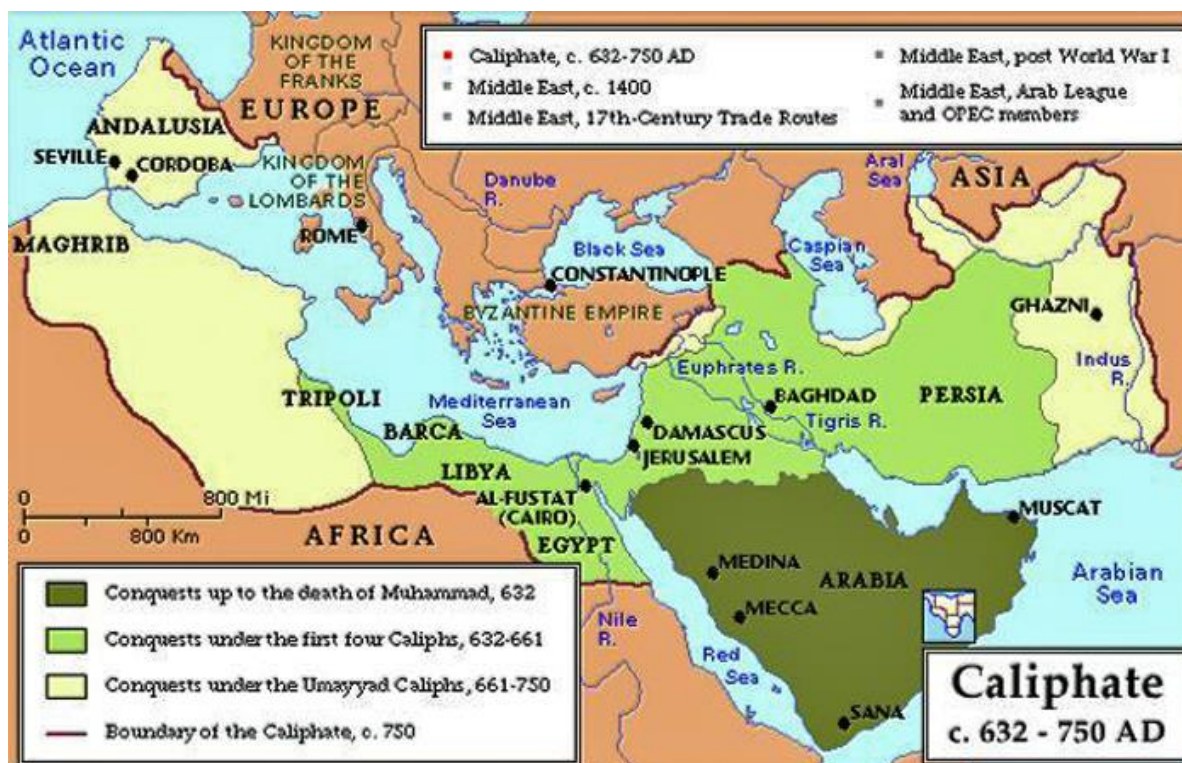


Figure nr.1 – Caliphate 632-750¹⁰

The Caliphate period, if can be said officially, stretches between the years 632-1924. During this time, the Caliphate position it was occupied by dynasties such as Umayyad, Abbasids and the Ottomans¹¹. End of the caliphate is due to Mustafa Kemal Ataturk, who brought the most important reforms that allowed the Turkish nation to exercise its popular sovereignty through representative democracy.

This involved the dissolution of two institutions that governed the sovereignty, which was popular until then: Ottoman Dynasty (November 1st, 1922) and the Caliphate (March 3rd, 1924). After the abolition of the caliphate, for the Muslim radicals, it remained as a desideratum its reinstatement. The fulfillment of this desideratum come at the same time with the appearance of ISIS subsequently converted in ISIL, a terrorist organization, whose rapid ascent, gave the opportunity to control territories and to establish its own caliphate.

⁹ Vlad M., *Jihadistan (1): Califatul SIIL din Orientul Mijlociu*, 30 iunie 2014, <http://inliniedreapta.net/jihadistan-1-califatul-siil/>, (accessed on 21 January 2016).

¹⁰ <http://usiraq.procon.org/view.background-resource.php?resourceID=955>, (accessed on 16 January 2016).

¹¹ Roxana Gheorghe, *Să cunoaştem ţările arabe - Califatul*, <http://www.e-scoala.ro/arabic/califatul.html>, (accessed on 5 January 2016).

Originally called ISIL, the Islamic State of Iraq and Levant (Lebanon), and subsequently ISIS (Islamic State of Iraq and Syria), is an active jihadist group, organized as a state, although unrecognised in Iraq and Syria. The group was founded in 2004 as a branch of al-Qaeda, trained and supported by a groups of insurgents, including the organization which preceded them, "Shura Council Mujahideen, Al-Qaeda in Iraq, the Jaysh al-Fatiheen, Jund al- Sahaba , Katbiyan Ansar Al-Tawhid wal Sunnah, al-Taiifa Jeish al-Mansoura"¹² and other clans with Sunni Muslim. From the very beginning, the purpose of the group was to establish a caliphate in the regions with a Sunni majority in Iraq, followed by its expansion to include Syria as well.

After the outbreak of civil war,¹³ al-Qaeda develops its own branch of the organization in Syria called Jabhat al-Nusrat,¹⁴ which in 2014 falls apart, due to internal conflicts of the group jihadist Islamic State, which quickly occupied parts of Iraq and Syria (ISIS) „increasing its notoriety through brutality, including mass killings, kidnappings and beheadings.”¹⁵ The existence of the Islamic state was marked by the establishment of a Caliphate (a state governed according to Islamic Sharia law), led by the recognized Caliph Abu Bakr al-Baghdadi, who supposedly swore allegiance throughout the Muslim world.

In February 2014, after a struggle for power of eight months, al-Qaeda cut all ties with ISI.

The war in Iraq has claimed a significant presence in the Iraqi provinces of Al Anbar, Ninawa (Nineveh), Kirkuk, Salah ad Din and parts of Babil, Diyala and Baghdad. These claimed Baqubah as capital. In the ongoing Syrian Civil War, the group has a significant presence in the Syrian provinces Ar-Raqqa, Idlib and Aleppo.¹⁶

The cruelty and radicalism that the ISIS has demonstrated, led Al-Qaeda to deny their actions. In a press released published in February 2014 on numerous Islamist websites, the central leadership of Al-Qaeda and its leader, Ayman al-Zawahiri, separated themselves from the group of Abu Bakr al-Baghdadi: "Al-Qaeda announces that it is not linked to the SIIL (...) This is not a branch of the Al-Qaeda group, does not have an organization relationship with Al-Qaeda and Al-Qaeda is not responsible for its actions.”¹⁷

Thus established, the party completely changes the picture of the Syrian conflict, initially fighting against al-Qaeda and against rebel groups. ISIS appearance has strongly disrupted USA position, which still supports the Syrian rebels against the Assad regime, which is at the moment in a position to declare that they will not compromise the fight against terrorist groups.

The appearance in the Middle East of a new Sunni fundamentalist state, without borders, expanding, seemingly impossible to stop, can be explained by the very biography of the last decade of its leader, Abu Bakr al-Baghdadi.¹⁸

¹² Daniel Vla, *Ce este ISIL; ISIS sau Stat Islamic*, August 2014 <https://danielvla.wordpress.com/2014/06/15/ce-este-isil-sau-isis/>, (accessed on 16 January 2016).

¹³ Firas Abi Ali, "Alwiyat Suqour al-Sham's merger with Harakat Ahrar al-Sham al-Islamiya facilitates increased foreign support to militant Syrian Salafists," *Jane's Intelligence Weekly*, Volume: 7, Issue: 16, Mar 25, 2015, Jane's Information Group, Coulsdon, United Kingdom.

¹⁴ *Al monitor The pulse of Middle Est*, 17 May 2015, <http://www.al-monitor.com/pulse/originals/2014/11/jabhat-al-nusra-idlib-islamic-emirate.html#> (accessed on 26 January 2016).

¹⁵ *What is 'Islamic State'?* BBC News on 2 december 2015 la <http://www.bbc.com/news/world-middle-east-29052144>, (accessed on 16 January 2016).

¹⁶ *What is 'Islamic State'?* BBC News on 2 december 2015

¹⁷ Vlad M. *Jihadistan (1): Califatul SIIL din Orientul Mijlociu*, 30 iunie 2014, <http://inliniedreapta.net/jihadistan-1-califatul-siil/>, (accessed on 16 January 2016).

¹⁸ Ashley Fantz, "How ISIS Makes (and Takes) Money," CNN, February 19, 2015, <http://www.cnn.com/2015/02/19/world/how-isis-makes-money/>, (accessed on 16 January 2016).

A former student in Baghdad and the Islamic militant at the time, in 2005 Baghdadi ends into an American prison in the south of the country, from where he was released in 2009. At that time, few could foresee that Baghdadi will become one of the most wanted people in the world. During his time in prison, he came into contact with some of the most dangerous Islamic extremists.¹⁹ This made possible its extreme radicalization. It accumulated boundless hatred against foreign occupation of the country in this period.

In 2010 he was elected as the leader of the Islamic State of Iraq,²⁰ an event followed by years of bloody attacks against the Baghdad regime backed by the USA, the group expanding its operations in Syria and on 29 June 2014 it is announced the formation of the Caliphate, under the name of Islamic State.²¹

Financially supported primarily due to the Iraqi and Syrian oil from areas they control, having as members volunteers coming from different places, given the fact that it acts in an area of maximum conflict, ISIS has become an extremely aggressive move.

Unlike al-Qaeda, it focused on the opponents from nearby, more accessible, preferred to induce a sectarian war between Sunni and Shia, turned into a fratricidal conflict extremely violently against alleged traitors and rebels from its own Sunni camp and was evidenced by attacks perpetrated especially on the Shiites, kidnappings and executions.²² All these aspects, confirm those mentioned by Fuad Hussein, chief of the Barzani staff: "You cannot sleep if ISIS is in your neighborhood, you will have many nightmares. The reality is that we face a threat ... the ball exploded."²³

It is estimated that over 10,000 Islamist fight in the name of ISIS, fully committed to its campaign of religious purification, and who demonstrate extraordinary cruelty. Iraqi groups and tribes of Sunni Muslim religious denomination, dissatisfied with the sectarian government of Iraqi Prime Minister Nuri Al Maliki's Shiite and former combatants of the Baath party of Saddam Hussein, joined the black flag of jihad, al-*raya*.²⁴

The Black Flag (al-*raya*) has its roots in the very beginning of Islam. It was the fighting flag of the Prophet Mohammed carried by many of his companions including his nephew Ali ibn Abi Talib. The flag has become well known in the 8th century when the Abbasid revolution leader, Abu Muslim, who led a revolt against the Umayyad clan and the Caliphate, used it. Since then, the image of the black flag was used as a symbol of rebellion and religious fight (i.e., Jihad) and black flag in the Shiite faith is related to expectations regarding the afterlife. In contemporary Islamist movement, black flag used to symbolize both offensive jihads, as well as the supporters of the reestablishment of the Islamic Caliphate.²⁵

It is no secret that, once the conflict broke out, supporters appeared on different sides, who have supplied arms and money to their favorites. From the very beginning, the regime of Bashar

¹⁹ Clarisa Ward, *The origins of ISIS: Finding the birthplace of Jihad*, 4 noiembrie 2014, <http://www.cbsnews.com/news/the-origins-of-isis-finding-the-birthplace-of-jihad/>, (accessed on 16 January 2016).

²⁰ *ISIS Fast Facts*, <http://edition.cnn.com/2014/08/08/world/isis-fast-facts/index.html>, (accessed on 16 January 2016).

²¹ Radu Toma, *ISIS*, 12 septembrie 2014, <http://www.cotidianul.ro/isis-247092/>, (accessed on 16 January 2016).

²² Mushreq Abbas, *IS Makes Plans to Fend Off Attacks on Mosul*, trans. Rani Geha, Al-Monitor, September 23, 2014, www.al-monitor.com/pulse/originals/2014/09/iraq-islamic-state-baghdad-war.html, (accessed on 30 ianuarie 2016); Shane Harris, "The Re-Baathification of Iraq," *Foreign Policy*, August 21, 2014, www.foreignpolicy.com/articles/2014/08/21/the_re_baathification_of_iraq, (accessed on 10 January 2016).

²³ *Re-configuring the Middle East: IS and Changing Demographics*, Rajaratnam School of International Studies, (accessed on 16 January 2016).

²⁴ Vlad M., *Jihadistan (1): Califatul SIIL din Orientul Mijlociu*, 30 iunie 2014, pe <http://inliniedreapta.net/jihadistan-1-califatul-siil/>, (accessed on 10 January 2016).

²⁵ Vlad M., *Jihadistan (1): Califatul SIIL din Orientul Mijlociu*

al-Assad, representing the side of Shiite Islam, had the frequent support of Iran, obviously, and those of Shiite orientation, between the two regimes there is since 2006 a military agreement under which they should help each other.

The support is more than obvious, given the fact that Tehran considers Syria as a “35th Iranian region.”²⁶

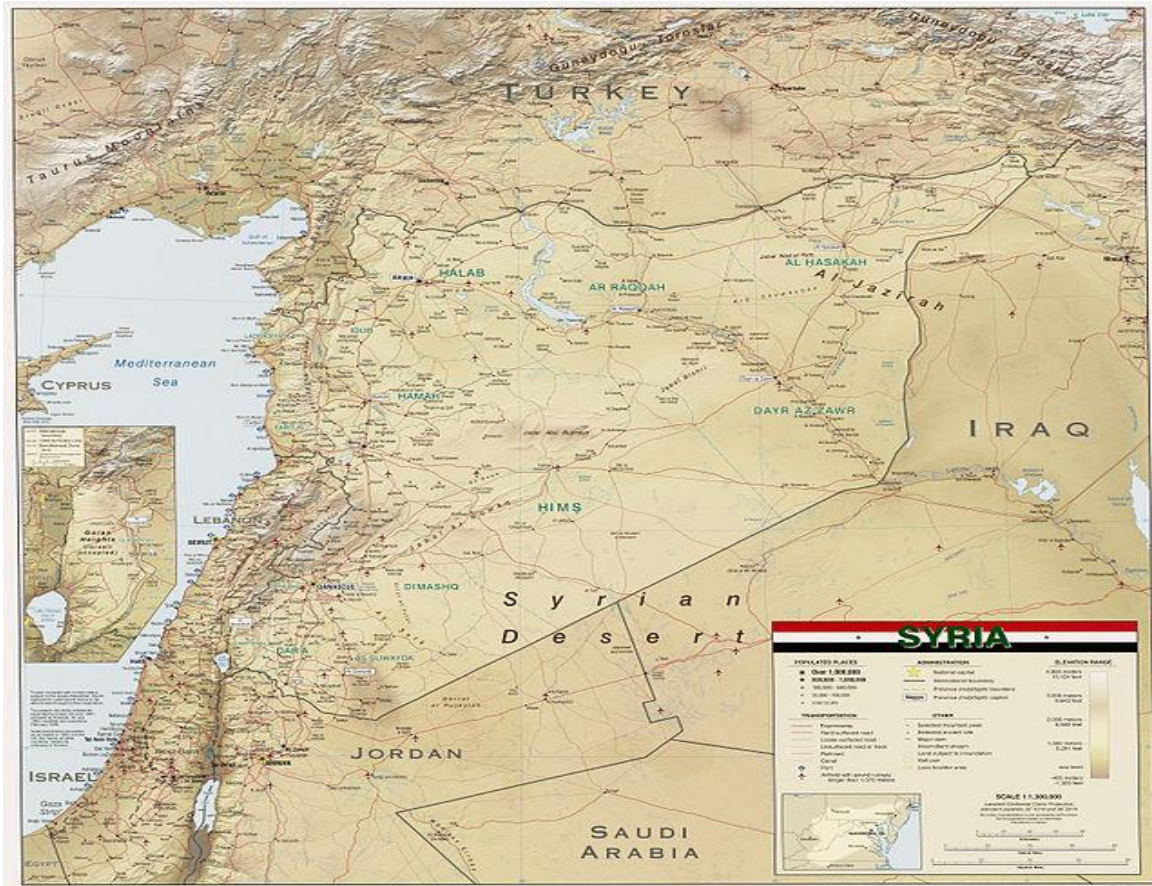


Figure nr.2 - Siria²⁷

The second supporter of the Assad regime has proved to be Lebanese Hezbollah, also of Shiite origin, a frequent opponent of Israel. Such an alliance, along with the rise to power of Shiites in Iraq, constitutes the emergence of a so-called “Shia arc”²⁸ situation unfavorable for the Sunni countries.

It is necessary to draw attention to the fact that the al-Assad family origin is Alawite, a sect of Shi'ism, it leads Syria for approximately forty years. It should be noted that Syria is predominantly Muslim (75 %), of which about 10 % Shiite orientation. The Shia imposed themselves in the region following to the Iranian Islamic Revolution (1979), supported only by Syria at that time.

²⁶ Vlad Damian, *Siria, scena confruntării dintre suniți și šiiti*, “RFI”, 29 august 2013, <http://www.rfi.ro/politic-70442-siria-scena-confruntarii-dintre-suni-i-i-i-i>. (accessed on 16 January 2016).

²⁷ Vezi *History of the Assassin-Middle Eastern*, http://blackcateassassins.yuku.com/topic/385/History-of-the-Assassin-Middle-Eastern#U2IhiYF_tjA, (accesat în 2 ianuarie 2016).

²⁸ *History of the Assassin-Middle Eastern...*

All these aspects indicate that, even after taking a turn that involves economic and geostrategic interests, at the base of the Syrian conflict it is the fight between Shiite and Sunni side of Islam.²⁹

However, it is obvious that the main issue that led to accentuated extremist manifestation it is the incorrect interpretation of religious texts, based on a weak preparation in the field and the absence of authority to control these aspects.

In the framework of a book recently published, called “The Paradox of Freedom: Revolution and Counter-religious secular” the American political philosopher Michael Walzer examines cases in Algeria, India, and Israel. It shows that in all countries, the revolutionaries believed that history is a linear process in favor of, science, justice and nationalism, and religion was part of a superstitious past. But in all three countries, the radical religious movements have arisen, “reviving in a more virulent manner the religious identity and imperatives values of the challenged past.”³⁰

This conclusion can be easily extended to the current situation in Egypt, Syria, Iraq, Iran, and to some extent in Turkey. It cannot be argued that secular revolution failed as long as their institutions and political culture are still present, but have failed under the aspect of ignoring the religious aspect. It is a certainty that revolution actions have aggravated matters religious aspect, giving rise of impulses of religious extremism.

The eminent novelist of Franco-Lebanese origin, Amin Maalouf,³¹ took up this theme in his book “Disordered world: Setting a new course for the twenty-first century.” Although secularist convinced with Christian Lebanese origin, it highlights the serious impacts on civilization after the decline of the caliphate Abbasid, concluded in the XIII century and the risks inherent in the absence of a religious authority recognized by the great mass of Islam.

On this subject, he compares the role of the papacy in the Catholic world, which over time, and despite its ups and downs, finally decided to limit the level of a district in Rome, the papacy resisted and played an important role in the western evolution.

By maintaining religious authority, at least in the Catholic population, has been a constant reference point, though very conservative in the face of radical religious, like Savonarola Florentine monk from the XV century and others who claimed their own authority to interpret and manage religion. Meanwhile, there were a number of radicals who wanted to use the religious authority in order to acquire political authority, who maintained the rules of the game and the balance between religion and authorities of the times.

The Vatican and its network of institutions in Europe have represented a vast deposit of books, libraries, source of information and research. Although sometimes has failed, the excellent discoveries made by of Galileo Galilei or Copernicus, represented a genuine accumulation of knowledge, legitimate science and knowledge in the framework of thinking and religious

²⁹ Charles C. Caris and Samuel Reynolds, “ISIS Governance in Syria,” Institute for the Study of War, Middle East Security Report 22 (Jul. 2014); Leila Fadel, “Common Ground between Iraq's Rebels May Be Crumbling,” All Things Considered, NPR, July 23, 2014, www.npr.org/blogs/parallels/2014/07/23/334475601/commonground-betweeniraqs-rebels-may-be-crumbling, (accessed on 16 January 2016); Leila Fadel, “Saddam's Ex-Officer: We've Played Key Role In Helping Militants,” All Things Considered, NPR, June 19, 2014, www.npr.org/blogs/parallels/2015/06/19/323691052/saddams-exofficer-weve-played-key-role-in-helping-militants, (accessed on 4 January 2016); Hassan Hassan, “Isis Exploits Tribal Fault Lines to Control Its Territory,” *The Observer*, October 25, 2014, www.theguardian.com/world/2015/oct/26/isis-exploits-tribal-faultlines-to-control-its-territory-jihadi, (accessed on 7 January 2016).

³⁰ Paul Salem, *The Caliph's Revenge*, Middle East Institute, 9 septembrie 2015 <http://www.mei.edu/content/article/caliphs-reveng>, (accessed on 23 January 2016).

³¹ <http://islam.about.com/od/zakat/p/zakat.htm>, (accessed on 23 January 2016).

institutions and protect the true treasures of knowledge and culture of the vicissitudes at the time, war and destruction. Although the Vatican has taken decades, sometimes even centuries, to accept new ideas or values, it has managed to develop religious thought, gradually accepting change and finding a way to make an old religion to embrace the evolution of human civilization.

The Muslim capitals - Damascus and later in Baghdad - influenced the evolution of civilization for six centuries in terms of thought and science, a period that was followed by stagnation, of six centuries after the Mongolian invasion from the middle of the thirteenth-century middle. The rise of the West and the conquest of the Muslim lands in the eighteenth and nineteenth centuries, it brought a period of drift and stagnation.

As it happened in other religions, and in Islam have been over time a number of different interpretations of sacred texts (Koran and Hadith)³² from different types of thinkers, who over time have produced a so-called mosaic school of thought, traditions, solution of adapting to the realities of life specific to the times in which they lived. In counterpoint, there was a radical rationalist school in Baghdad (Mutazila), long before Thomas Aquinas.³³

For several years, around twentieth-century, the grand mufti of Egypt, and a landmark figure for al-Azhar University, Imam Muhammad Abduh,³⁴ preached the importance of justice, human equality, free will as a tool for progress given by God, criticizing the literal, strict and old-style interpretation of Islam.

It is the period in which it was a current of modernized thought emerged, supported by prestigious figures of the Muslim world that have tried harmonizing the Koran with the modern sciences. Apart from Muhammad Abduh, Rashid Rida³⁵ stands at the time as well, who claimed even the fact that Darwinian theory is not incompatible with faith and based on these theories would will also find in the Koran, that the representation of man in the art would not raise the doctrinal issues as long as it does not seek through this religious reverence.

Comparing this kind of thinking, again the extremism of groups today, it is almost unbelievable, especially since, those who claimed they were members of the Arabic intellectuals at that time, having significant positions in the university Al-Azhar in Cairo, the benchmark for Islamic thinking.

However, the current has faded in the second half of the twentieth century, the Islamic thought is gradually oriented towards traditionalism, based on a narrow interpretation of the sacred texts, and an attempt to equalize the huge diversity of practices and attitudes, by putting them up in a Puritan canon decreed as "one and only true faith."³⁶

There is no question of lamenting the disappearance of some successful institutions from the history of Islam, but the absence of a centralized authority, leaves a community of nearly 1.4 billion people, a fifth of the world population, in drift and vulnerability. This is no longer just a problem

³² Sorin Ioniță, *Cum sa citim Coranul: mic îndrumar pentru bunii musulmani*, 20 ianuarie 2015 <http://www.contributors.ro/cultura/cum-sa-citim-coranul/>, (accessed on 3 January 2016).

³³ *Ibidem*.

³⁴ Muhammad 'Abduh, jurist islamic egiptean, savant religios și reformator liberal, considerat ca fiind una dintre figurile-cheie ale fondării modernismului islamic, numit și neo-Mu'tazilism după școală islamică medievală de teologie bazată pe raționalism, Mu'tazila.

³⁵ Reformator islamic timpuriu, ale cărui idei au influențat mai târziu gânditorii islamisti ai secolului 20, a fost unul dintre cei mai influenți și savanți controversați ai generației sale fiind a fost profund influențat de Mișcarea timpurie Salafi și mișcarea pentru modernism islamică fondată în Cairo de Muhammad Abduh.

³⁶ Sorin Ionita, *Cum sa citim coranul: mic îndrumar pentru bunii musulmani*, 20 ianuarie 2015 <http://www.contributors.ro/cultura/cum-sa-citim-coranul/>, (accessed on 3 January 2016).

a religious nature, for the followers of the faith, but a matter of regional and global stability and security. It may be the starting point for the study of the advantages and disadvantages of the revitalization of a form of modern papal caliphate project that could be unimaginable in the Muslim world.

There could be the possibility to think to construct one or more education places and the moderate Islamic authority. The Gulf countries have spent rightly, billions of dollars to develop higher education institutions, the last one being the University of Science and Technology “King Abdullah”. It benefits from endowments worth 20 billion, making it the third of the richest universities in the world after Harvard and Yale, while Al-Azhar University and other moderate learning religious centers in Egypt, Tunisia, and Morocco They are in very poor condition.

All this highlights the fact that religious education and the leadership of the communities requires a strategic attention. While investment in science and technology centers and investments in infrastructure and economic development and trade have their importance, just as important, perhaps even more important it is an investment in education and religious leadership. Perhaps the Al-Azhar should be reinvented and transformed into a key centre for religious education, as it was once, but developed in such a way as to seriously research center in humanities and natural science, or perhaps it should found other solutions and vision to make things to go on. In any case, the gap and the vulnerability left by the abolition of the caliphate and undermining traditional and moderate religious institutions gave rise to global threats and challenges that cannot be ignored.

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THE ROLE OF STRESS MANAGEMENT IN IMPROVING THE QUALITY OF LIFE

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ABSTRACT

STRESS OCCURS AS A REACTION TO THE CHANGES AND PRESSURES THAT ARISE IN THE DAILY LIFE OF EACH OF US. STRESS CANNOT BE ELIMINATED BUT WE CAN LEARN TO CONTROL IT, APPLYING LIFE STRESS MANAGEMENT, A SET OF PRINCIPLES, RULES AND METHODS THAT HELP US SUCCESSFULLY OVERCOME STRESSFUL SITUATIONS OF OUR LIFE, IN ALL ITS ASPECTS. APPLYING STRESS MANAGEMENT ON OUR LIVES, INCREASINGLY AGITATED AND FULL OF UNEXPECTED, WOULD INCREASE OUR QUALITY OF LIFE, THAT IMPROVE OUR LIVES IN MANY WAYS: WE WILL HAVE BETTER HEALTH, WE CAN CONCENTRATE BETTER, WE IMPROVE WORK WE TAKE, WE WILL IMPROVE SLEEP, WE WILL IMPROVE RELATIONS WITH FRIENDS AND FAMILY.

KEYWORDS: STRESS, STRESS MANAGEMENT, QUALITY, QUALITY OF LIFE

INTRODUCTION

Quality is generally a set of properties and features that have a product or service, which gives it the ability to meet the needs expressed or implied. Quality is measured simply as customer satisfaction¹. Quality management is a set of methods and practices implemented to achieve sustainable satisfying customer needs and expectations at the best price.

Quality of life is a state of physical, emotional well-being, a state of intellectual, a good social status, a good spiritual status, a welfare environment in which we operate. Scientifically, stress is defined as "way of how specific or nonspecific reactions of a body to stimulators that affect this balance and tired or exceeds the capabilities of control"².

Stress management is combining art with science to efficiently manage situations that may lead or have led to stress.

The role of stress management in increasing the quality of life is to prevent stress in daily life and installation, but to reduce or at least also removed the negative effects of stress already installed on life and thus to improve it.

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¹ Nicolescu, O., Plumb, I., Pricop, M., Vasilescu, I., Verboncu, I. – Abordări moderne a managementului și economia organizației, volumul 2, Managementul pe domenii de activitate, Editura Economică, București, 2003, p. 480, 494

² Schröder, J.-P., -Managementul stresului, Editura All, 2011, p. 9, 21

1. STRESS MANAGEMENT - GENERAL TERMS

Stress is a problem, and that any problem, it must be resolved. Combat stress is more than applying stress reduction techniques. Steps to combat stress, control their activities to combat stress should be a part of what is called, and each of us has, that our weapons of defense against stress³.

Stress is our reaction to changes, pressures that confronts our lives every day. There is good stress, eustress which stimulates us to achieve outstanding performance in our work, but there is a negative stress, distress, that can destroy our lives, careers, health, etc. It is important to study the latter stress, the destructive.

We cannot eliminate stress from our lives completely, but we can, applying stress management, to diminish it, to prevent our deteriorating health, relationships with colleagues, performance at work and in general our whole life.

Exhaustion own energy resources leads to fatigue, which is the decisive element that leads to chronic stress, negative. As effects of stress on the body have: difficulty concentrating, nervousness, anxiety, memory disorders, chronic fatigue, disorganization. Reactions to stress can be on four levels, but that influence each other⁴: the cognitive (perception is low, it can lead to fainting, may occur nightmares), muscle (strain in the muscles, backache, headache etc.), the vegetative hormone (feeling sore throat, body sweating, dizziness etc.), and an emotional (fear, uncertainty, anxiety, depression).

Because, most often cause of stress installation is in us, and healing all have to find ourselves. As methods to combat stress have offered stress management: application change management, project management and processes, relaxation techniques, body balance, techniques of communication, time management, etc. After applying these methods and management techniques must have again a balance of body, soul and spirit.

2. THE QUALITY OF LIFE - DEFINITION AND IMPORTANCE

Quality of life is generated by a set of properties, characteristics, conferring the ability to satisfy expressed or implied needs over a lifetime. Assessment of quality of life is based on features such as functional (speed, pace, productivity), construction (dimensions, etc.), economic (consumption, costs: maintenance, of production etc.), aesthetic, ergonomic (comfort, security etc.), environmental (pollution level, duration) etc. Quality of life is a dynamic, constantly being redefined. Quality of life of each person affects the quality of each individual part in a society that is evolving in the current market economy. The quality of individual life directly or indirectly contributes to the economic development of society. Increased confidence in society contributes to increased quality of life of every individual who composes it.

The quality of individual lives and society the individual lives are interconnected. This increases the individual quality of life, increase confidence of individuals in the society in which they live, in offer of quality of life that this society brings its individuals. Offer quality individual life brought by different human societies, national and international level is constantly changing. Change is not an end in itself but a means to operate the company, to adapt to the individual requirements of quality of life, always aligned to offer and coming international requirements. If the conditions of quality of life desired by individuals is not provided, as expected, by the societies they belong, then these individuals with desires and needs on a higher level of quality of life of

³ Miller, S., H., Stress management for you, The knowledge for life series, 2013-2014, 100

⁴ Schröder, J.-P., -Managementul stresului, Editura All, 2011, p. 22, 62, 63

their own, will leave the society they belong, heading towards other human societies that provide the quality of life that wishes, they feel that they may have, and they need, they feel solidarity.

Developing general level of education and training of members of the society increased the complexity of human societies, diversification, offering a level of quality higher and higher individual life. Current policy of any modern society is that to not remain without individuals, each society must be competitive, that provide individual quality of life that he wants. In any human society, quality of life, once constructed to a certain level should always be checked and upgraded to meet the needs of every member of society. It is necessary to enhance the cooperation relations between the individual and society, must be decentralized responsibilities and the individual must be involved in increasing the quality of his life and the other individuals in society.

To have a society with an ever higher quality of life provided the individual is required to be continuously trained members of society, and individual quality of life is guaranteed by the society to which they belong. Prestige society as a whole depend quality of life offered to each individual, member of the human society to which he belongs. The society offers more high quality, individual life, the society members are confident in that society, they will participate to its development and to its increasing internal and external prestige.

3. THE ROLE OF STRESS MANAGEMENT IN INCREASING THE QUALITY OF LIFE

In small quantities, stress helps us to be focused, energetic and alert. If stress levels increase, it can destroy our health, productivity, relationships with others and quality of life. In 2020 depression will be the second cause of death after cardiovascular disease (in present 4th place)⁵. Depression affects one person in five. One person of 75 people has a panic attack. One person in four has an anxiety disorder (fear) - from the fear of death, sickness, fear of public speaking, to fear anything. 80% of people say they are stress at work and more than half admit they would have to intervene in their lives to reduce stress and increase their quality of life.

Among the items generates stressful situations in life of each individual are the following:

- a. workplace (conflicts with colleagues, bosses, too many tasks, it maladjustment, incompatibility);
- b. money (job loss, pension too low, too high expenditure, lack of income);
- c. health (Expenditures of chronic or excessive / unexpected treat diseases);
- d. relations (divorce, loneliness, conflicts with: partner, friends);
- e. inadequate nutrition (lack of vitamins in the diet, fruits and vegetables, high intake of unhealthy food);
- f. the media (television, radio, internet, social networks);
- g. lack of sleep (inability to release adrenaline and other stress hormones)⁶.

Stress is an additional problem, which the body needs to find a solution. For this reason it is said that, most often, people are complicates life stressing. It is vital to recognize that when we get stressed, we sick: physically and mentally. Because stressors will not go away, if I'm stressed out, why not choose to confront stressors without me stress?

Stress physically sick: muscle pain, high blood pressure, back pain, gastrointestinal problems, cardiovascular, cancer, diabetes, etc. Stress affects the psyche: decreases the ability to concentrate and make effective decisions (IQ 120 drops to 80 when we are nervous), occurring mental illness that can include depression, anxiety, panic etc.

⁵ <http://www.top-psy.ro/stresul-te-ucide-incet-dar-sigur-afla-50-de-moduri-in-care-te-afecteaaza/>

⁶ <http://www.top-psy.ro/stresul-te-ucide-incet-dar-sigur-afla-50-de-moduri-in-care-te-afecteaaza/>

Stress affects relationships with others. Nobody wants to be around a person's stress.

Stress occurs in many ways. Among them are: frequent headaches, backache, muscle spasms, dizziness, lightheadedness, ringing in the ear, redness frequently and sweating hands, cold hands and feet or sweaty, dry mouth, itching, irritation, allergies unexplained stomach pain, nausea, difficulty breathing, sigh, panic attacks, palpitations, anxiety, guilt, excessive nervousness, anger, frustration, depression, changes in mood swings, insomnia, nightmares, difficulty concentrating, feeling of overload, feeling loneliness or worthlessness, nervous tics, constant fatigue.

Numerous emotional and physical stresses have been linked with stress: depression, anxiety, heart attack. The immune system is affected. Appear some types of cancer, skin disorders, of the gastrointestinal system, insomnia etc. It is hard to believe that there is a disease that stresses not to aggravate or that there is any part of the body that is not affected by stress.

Stress Management builds and applies strategies for prevention and elimination of stress to live a quality life, longer and with as little stressful situations. Because we are the main cause of the installation stress in our lives, we are the first and we can remove the stress that we live. Because stressful situations are felt differently from individual to individual and tackle strategies should be individualized to be effective. As an emergency measure to combat stress is keeping farther the distance towards the problem, release for short time of everything we can stress. It can apply a healthy mix between tension and relaxation. It can apply project management, project being combat stress. Then, we can apply time management to draw up a timetable with deadlines for personal planning time. All this are made for life to not take us by surprise unpleasantly, and if this happens, however, we have a solution for every situation.

The ability to give quality every day of our lives is in us. We must find a balance between body, mind and spirit, which together are in harmony; we can help us overcome any situation, no matter how stressful it is.

CONCLUSIONS

Stress management means managing daily stress. Quality of life is the summation quality of life every day of our lives.

It is good to overcome stress before it masters us. We must not lose sight of our goals and have the courage to sometimes disappoint others. We must not become workaholics and do nothing out of obligation⁷.

We must enjoy the silence occasionally and to respect the refusal of others. If at least they will be respected, we can say that we have added our life, quality, be just and removing the stress.

⁷ Schröder, J.-P., Managementul stresului, Editura All, 2011, p. 127

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OFFENCES BY WHICH THE LEGAL REGIME OF WASTES IS INJURED

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ABSTRACT:

THE PROPER MANAGEMENT OF WASTES PRESENTS A SPECIAL IMPORTANCE FOR THE MAINTENANCE OF THE ECOLOGICAL BALANCE AND BY DEFAULT, THE HEALTH OF THE POPULATION, THEREFORE, AS PER INTERNATIONAL CONVENTIONS AND DOCUMENTS OF THE EUROPEAN UNION, ROMANIA INCRIMINATED, BY ART. 63 FROM LAW NO. 211/2011, A LOT OF ACTS BY WHICH THE ESTABLISHED REGIME IN THIS FIELD IS BREACHED. ANALYSING THE LEGAL CONTENT OF THE RESPECTIVE OFFENCES, IT IS FOUND THAT SOME DIFFICULTIES MIGHT EXIST IN WHAT REGARDS TO THEIR APPLIANCE IN CONCRETE CASES, THEREFORE IMPOSING SUCH A PROFOUND ANALYSIS IN REGARD TO THEIR WAY OF INTERPRETATION AND ALSO PROPOSALS OF FRENETIC LAW.

KEY WORDS: ENVIRONMENT, WASTES, LEGAL REGIME, OFFENCES.

INTRODUCTION

The continuous development of the consumption society brought, among its benefits in the sphere of material wellness, multiple problems, by which the multiplication of wastes also derive from, with negative effects over the environment and by default, over the conditions of life, due to the permanent development of all economic and social activities generated.

The pollution by wastes is practically inevitable, considering the fact that every activity generates unusable rests, in many situations harmful to health and their quantity is permanently amplified by the cause of increasing the needs of the society³.

In the past waste management did not represent a priority, nevertheless in present, according to the environmental legislation, waste producers, and also specialized companies in the value or removal of these wastes are obligated to insure their hosting rationally, without negative effects ecologically. Thus, the necessity of environmental protection, and especially the intuition of some rentable businesses, generated the apparition of numerous waste management companies and a

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³ Mircea Duțu, *Dreptul mediului*, (Bucharest, C.H. Beck Press, 2007), 430.

market in which they cease to be unusable products, becoming the object of commercial transactions⁴.

Nowadays, in Romania the legal regime of wastes is ruled by the Law no. 211/2011⁵, republished, with amendments brought by the Law no. 187/2012⁶ for the application of the Law no. 286/2009 regarding the penal code, regulatory provisions regarding wastes also being embedded in other normative documents, as the Governmental Emergency Ordinance no. 195/22 December 2005, with further completions and amendments, or in some laws which different activity fields are ruled.

The Law no. 211/2011 – which transposes in the national legislation the Directive 2008/98/CE⁷ of the European Parliament and Council from 19 November 2008 regarding wastes and of abrogation of certain directives – establishes the necessary measures for the environmental protection and the health of the population, by preventing or reducing the adverse effects determined by the generation and management of wastes and also by reducing the general effects of using resources and increasing their efficiency in use.

The article 20 from the Law no. 211/2011 states that: waste management by companies from our country need to be achieved without endangering the human health and without damaging the environment, especially by: generating air, water, ground, fauna or flora risks; increase of discomfort due to the noise or smell; affecting the scenery or special interest areas⁸.

Violating certain regulations from this law, achieves the content of contraventions foreseen at art. 61 or of the offences shown at art. 63 from the same law⁹.

Apart from the contraventions, of which content can be easily identified by the references done at the texts from the law which foresee the obligations of which failing to respect, are sanctioned, in the case of offences, such references are not done, and the formulation of some incriminations is to general and short, without clear references concerning the material objective or the material element, etc., therefore the exact sphere of their contents being hard to establish, reported to the acts committed in reality.

⁴ Jose Juste Ruiz, *Derecho internacional del medio ambiente*, (Madrid, Mc Graw-Hil, 1999), 308.

⁵ Law no. 211/2011 regarding the regime of wastes was published in the Official Gazette of Romania, first part, no. 837 from 25 November 2011 and republished in the Official Gazette of Romania, first part, no. 220 from 28 March 2014, under art. 248 from the Law no. 187/2012 for the appliance of the Law no. 286/2009 regarding the penal code.

⁶ Published in the Official Gazette of Romania, 1st part, no. 757 from 12 November 2012.

⁷ Published in the official journal of the European Union (JOUE) series L no. 312 from 22 November 2008.

⁸ According to the principle „the polluter pays “, the waste management costs are beard by their producer or, by case, by their actual holder or pervious of wastes (art. 21 from the Law no. 211/2011).

⁹ According to the art. 63 p. 1 from the Law no. 211/2011 „(1) Their constituted offences and are punishable with imprisonment from 6 months to 5 years or fine for the following acts: a) importation of installs, machinery, equipment, apparatus, substances and worn and used products, from the category of wastes prohibited at importation; b) disrespect or failing to take the obligatory measures for the development of collecting, treating, transportation, valuing and elimination activities concerning dangerous wastes; c) commercializing, abandoning and/or failing to secure the waste loads during or on the duration of transiting the Romanian territory; d) refusal to return in the country of origin the respective wastes introduced into the country in other purposes than the one of eliminating and for which the measure of return was disposed by the competent authority; e) introducing into the country wastes with the purpose of removal and/or not using them in the purpose from which they were introduced; f) acceptance by the warehouse/incinerating operators, in order to eliminate, the wastes, illegally introduced into the country and/or wastes introduced into the country for other purposes than the one of elimination and for which they were introduced”.

THE ANALYSIS OF THE LEGAL CONTENT OF INCRIMINATIONS COMPRISING THE ACTS BY WHICH THE LEGAL REGIME OF WASTES IS VIOLATED

- A general observation consists in the fact that, in the situation of some offences from art. 3 from the Law no. 211/2011, for the „completion” of the legal content, so that a correct legal framework of the acts committed in reality to be achieved, the regulations from the Law no. 211/2011 and the appendixes, are not sufficient, but also other regulatory documents are also necessary to be consulted, and which identification is very difficult, since the text of the offences does not refer to them, therefore in practice, is more likely that numerous acts regarding the incorrect management of wastes will stay outside the penal illicitness, although in reality they would have a criminal character.

Another especially important aspect which needs attention is the fact that the sphere of acts which are categorized in these incriminations, it is limited by art. 2 from the law, in the meaning that, if the incriminating activity is performed over some wastes which are foreseen in this text (as in: „gaseous tributaries released into the atmosphere”, „radioactive wastes”, „triggered explosives”, „used waters” a. s. o.) do not achieve the content of the analysed offences.

A last specification, with a general character, consists in the fact that the Law no. 211/2011 cannot be considered than that of having a *general character* towards other regulatory documents which might incriminate similar acts, regarding the wastes produced in certain activity fields, these being applied with priority, towards the ”general” ones.

There are also, regulations which are considered to have a general character towards the ones comprised in the Law no. 211/2011, and as certain incriminations comprised refer to acts somewhat similar, the problem of establishing the applied texts to certain concrete acts is posed.

Therefore, for example, by *Law 101/2011 for the prevention and sanctioning of certain actions regarding the environmental degradation*¹⁰, which also establishes measures of penal nature in order to insure an efficient protection of the environment, and some actions regarding the incorrect waste management, with negative impact over the ecologic balance, are incriminating. Therefore, according to art. 3 from this law, actions regarding the collection, transportation, valuing or eliminating wastes, are punishable with imprisonment from 6 months to 3 years, including the supervision of these actions and further maintenance of the eliminating spaces and also the actions performed by brokers in the process of waste management, with the disrespect of the legal provisions in the field, if they can cause the severe injury or death of a person or a significant damage brought to the environment.

Likewise, in accordance with the art. 4 from the law, is punishable with imprisonment from 2 to 7 years, actions regarding the importation or exportation of wastes violating the legal provisions in the field, in the case in which this activity enters in the field of appliance fo the art. 2 pct. 35 from the Regulation (CE) no. 1.013/2006 of the European Parliament and Council from

¹⁰ Published in the Official Gazette of Romania, 1st part, no. 449 from 28 July 2011. Republished under art. 248 from the Law no. 187/2012 on the appliance of the Law no. 286/2009 regarding the penal code, in the Official Gazette of Romania, 1st part, no. 757 from 12 November 2012. Republished in the Official Gazette of Romania, 1st part, no. 223 from 28 March 2014.

14 June 2006 regarding the wastes transfers¹¹, no matter if the transportation is done by one or more operations¹².

Comparing these provisions with the ones comprised at the art. 63 from the Law no. 211/2011, it is found that certain incriminations are overlapped, in a somewhat measure, and the limits of punishment are not correlated with the abstract social danger, specific to each offence, which might impose a revision of all the regulations regarding the sanction of actions by which the regime regarding waste management is breached, so that the incriminations be clear, complete and eliminate the texts competition, which can create difficulties in their interpretation and appliance. Likewise, the limits of the punishments might impose to be reviewed, so that, each, will be able to express the social danger from the category of incriminating actions.

• Analysing each incrimination, we find that, except the first two, the others do not raise other special issues (than the ones „generated”, above presented) regarding their interpretation and appliance in practice, to concrete cases of violating the regime of wastes.

- a) The legal content of the offence foreseen at art. 63 letter ”a” from the Law no. 211/2011 is clearly under the aspect of the material element, nevertheless for the practitioners it will be hard to identify all the types of wastes „prohibited to importation”, considering that only those can constitute the *material objective* of the incriminating action.

Law no. 211/2011 does not comprise any provision in this way, and the interdictions to importations might exist in numerous normative documents (unstated in the legal content of the offence or in the contents of this law), in accordance with each activity field regulated, so that, by failing to identify one or more such regulations, for some actions, the judicial organisms cannot be referred.

- b) At the second incrimination, firstly, the *material objective* needs to be correctly established, respectively those *dangerous wastes*, whereas the activity of improper management is referred.

The list of wastes, including the dangerous ones, is established by the European Commission, being then taken by the national legislation by governmental decision¹³ (art. 7 from the Law no. 211/2011), nevertheless in some cases the performance of tests and analysis is imposed in order to determine them¹⁴, considering the properties shown in the appendix no. 4 from the law, which make them dangerous (as in: explosive, oxidizing, very flammable, irritant, toxic, harmful, cancerous a. s. o.).

The second issue of interpretation of the respective text constitutes the difficulty of establishing what are the „*obligatory measures*” of which „*failure to take*” or „*disrespect*” – in the management activities („*collecting, treatment, transportation, valuing and removal of dangerous wastes*”) – perform the material objective of the offence. The incriminating text does not show where these ”obligatory measures” are foreseen, therefore, in an hypothesis, their identification might be tried in the contents of the Law no. 211/2011, and in another „the search” might extend

¹¹ Published in the official journal of the European Union, series L, no. 190 from 12 July 2006, with further amendments.

¹² The incriminating actions by which the two texts are sanctioned and when committed by guilt, nevertheless the limits of punishment shown are reduced to half; in the case of action from guilt foreseen at art. 4 can be applied and amended (art. 9 from Law no. 101/2011).

¹³ See The Governmental Decision no. 856/2002 regarding the evidence of waste management and for the approval of the list comprising the wastes, including the dangerous ones, published in the Official Gazette of Romania, 1st part, no. 659 from 5 September 2002, with further completions, This list is mandatory in order to determine if a waste needs to be considered dangerous.

¹⁴ See art. 8-11 from the Law no. 211/2011.

in all the normative documents regarding wastes (to environment, in general), which might be extremely difficult and with approximate results, from the point of view of the legal sciences rigor, whereas not any disrespect of any obligation, no matter how minor, might realize the content of the offence.

Moreover, the formulation which is too general: „the disrespect of the obligatory measures” – does not allow the determination strictly neither for the specific obligations (of which violation might realize the material element of the offence), comprised even and not only in the Law no. 211/2011, under the conditions in which the lawmaker has not indicated expressly the texts in which these obligatory measures are foreseen (like contraventions). Moreover, we find that the violation of the most important obligations in sanctioned contraventionally, with such obligatory measures being too few (foreseen by law), of which violation presents, mainly, a reduced danger, incompatible with the one specific to offences.

Towards the ones shown, we appreciate that the lawmaker should have determined, clearly, which are the obligatory measures, regarding dangerous wastes management, of which disrespecting leads to the achievement of the material element of the offence.

If we admit that the material element of the offence is done by ”failing to take or failing to respect the obligatory measures” regarding the activities of waste management foreseen in other normative documents, in a first version, only the regulations referred in the contents of the Law no. 211/2011 should have been considered. Thus, for example, at art. 26 p. 3 from the Law no. 211/2011 shows that the activity of transportation of dangerous wastes on the Romanian territory is ruled by the Governmental decision¹⁵. Likewise, in art. 28 p. 1 from the Law no. 211/2011¹⁶ shows that the holders of dangerous wastes are obligated to insure that on the duration of performing the operations involving collecting, transportation and storage, these materials should be wrapped and labelled in accordance with the provisions of the (CE) Regulation no. 1.272/2008 of the European Parliament and Council from 16 December 2008 regarding the classification, labelling and wrapping of substances and mixtures¹⁷.

In our country the legal regime of some category of dangerous wastes is nevertheless established by other normative documents which rule certain activity fields. Therefore, *wrapping and wrapped wastes management* is ruled by the Decision no. 621/2005¹⁸, which contains some regulations referring to the quality of wrappings, meant to insure the protection of health and the hygiene of wrapped products, transportation requirements, and also some specific regulations regarding dangerous wastes. Also, the Governmental Decision no. 11/2003¹⁹ establishes the legal regime of radioactive wastes²⁰, resulted from the specific cycle of nuclear fuel, and also from the

¹⁵ See Government Decision no. 1.061/2008 regarding the transportation of dangerous and non-dangerous wastes on the Romanian territory, published in the Official Gazette of Romania, 1st part, no. 672 from 30 September 2008.

¹⁶ The transfer of dangerous wastes on the national territory needs to be followed by an identification document foreseen in the appendix IB at the (CE) Regulation no. 1.013/2006, with further completions and amendments (art. 28 p. 2 from the Law no. 211/2011).

¹⁷ Also the provisions of the Governmental Decision no. 1.408/2008 regarding the classification, wrapping and labelling of dangerous substances and of the Governmental Decision no. 937/2010 regarding the classification, wrapping and labelling on market introduction of dangerous mixtures, are also considered.

¹⁸ Published in the Official Gazette of Romania no. 639 from 20 July 2005, modified by the Governmental Decision no. 1872/2006 and by Governmental Decision no. 247/2011.

¹⁹ Published in the Official Gazette of Romania no. 61 from 1 February 2003, Republished in the Official Gazette of Romania no. 289 from 2 May 2007 under the Governmental Ordinance no. 31/2006 approved by the Law no. 26/2007 and further modified by the Law 329/2009 and by the Law no. 378/2013.

²⁰ In the understanding of the law, the radioactive wastes are radioactive materials in gaseous, liquid or solid form, for which no other attribution is foreseen and have or are contaminated with radionuclides in concentration higher than

nuclear technologies and techniques appliances in industry, medicine, agriculture or in other fields of social and economic interest, including the ones resulted from the disassembly of nuclear and radiologic installs.

CONCLUSIONS. PROPOSALS OF *FERENDA LAW*

Taking into account the considerations and arguments exposed above, we appreciate that it would be necessary to make an inventory of the normative documents by which the incriminating actions which breaches the legal regime of wastes are done and for which the overlapping of the aspects of certain provisions are found and also for the ones regarding to the improper formulation of some incriminating texts, or the ones of establishing certain limits of uncorrelated punishments with the social danger of the actions, especially by comparison with the ones afferent to some incriminations of the same nature.

As per resulted findings from this study, we propose *de lege ferenda*, removing the completion of texts, so that a certain category of actions to be incriminated in a single normative document. Likewise, the legal content of the offences needs to be formulated in such a way to comprise all the necessary elements for a correct framework of actions committed in reality, by violation of the legal regime of wastes.

Last but not least, even the necessity of the existence of the "general" incriminations themselves from the art. 63 from the Law no. 211/2011 may be brought into the discussion, considering that specific incriminations for normative violations regarding waste management in every field of activity may be sufficient and ruled in the same normative document, which might ease the ever more accurate stipulation of the legal content of offences and a better interpretation of the incriminating texts, in accordance with the content of the other regulations comprised in the respective law.

the accepting limits. By radioactive waste, the used nuclear fuel is also understood and for which no other use is foreseen.

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INCRIMINATION IN THE MIGRANT TRAFFICKING IN THE NEW PENAL CODE

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ABSTRACT:

THE PENAL LAW FROM OUR COUNTRY SANCTIONS THE ONES WHICH SUPPORT THE ILLEGAL MIGRANTS, BY RECRUITMENT, GUIDANCE, TRANSPORTATION, TRANSFERRING OR SHELTERING THEM, IN THE PURPOSE OF ILLEGALLY CROSSING THE STATE FRONTIER OF ROMANIA.

ANALYSING THE CONTENT OF THE INCRIMINATION REGARDING THE MIGRANT TRAFFIC, WE FIND THAT THERE ARE SOME INACCURACIES WHICH CAN IMPAIR ITS INTERPRETATION, THEREFORE IMPOSING THE IMPROVEMENT OF THIS REGULATION FOR A CORRECT APPLIANCE OF THE CONCRETE ACTIONS COMMITTED IN THIS FIELD.

KEY WORDS: MIGRANTS, HUMAN RIGHTS, ILLEGAL TRAFFIC, INCRIMINATION, REGULATION PERFECTING.

INTRODUCTION

The main responsibility of the respect, protection and insurance of human rights practice is in the duty of specialized state authorities, in article 2 (1) of The International Agreement regarding Civil and Political Rights¹ foreseeing that the signing states are committed to respect and guarantee *all individuals whom find themselves on their territory*, recognized civil and political rights, with no difference.

In the situation in which the citizen or resident is forced to leave the country, because the rights are violated, the main responsibility of protection comes to the receiving state, according to the assumed obligations under the U.N. Convention from 1951 regarding the status of refugees².

Throughout the history of mankind for certain categories of population, the departures outside the country of origin were linked by social or professional interests, or had represented the consequences of military conflicts, religious and political persecutions, economic problems and other necessities or dangers³.

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¹ Adopted by The General Meeting of The United Nations Organisations, at 16 December 1966.

² Dumitra Popescu, *Drept internațional public* (Bucharest, Titu Maiorescu University Press, 2005), 86

³ Horia Vintilă, *Dicționarul Papilor*, (Bucharest, Saeculum I.O. Press, 1999), 127-128.

In the last years the mobility of groups of people became extremely complex, and the movement of refugees who need international protection, intersects with the illegal migration in multiple ways⁴, in the search for a better life⁵.

The illegal migration is punished, generally, by the regulations adopted by the state, which punish the illegal crossing of the frontier.

In the new Romanian penal code, this offence is sanctioned according to the art. 262, and by art. 263 the activity of *migrant trafficking* is incriminated, committing different illicit acts, meant to help the ones in cause to realize their purpose of illegal crossing of the Romanian state frontier.

CRITICAL CONSIDERATIONS REGARDING THE LEGAL CONTENTS OF THE OFFENCE REGARDING MIGRANT TRAFFICKING

Analysing the text of art. 263 P.C.⁶, which sanctions the migrant trafficking, it is found that the way in which this incrimination was formulated, generates more interpretation and appliance problems in report to the committed actions in the objective reality.

1. Firstly, referring to the material element of the basic version of the offence, we appreciate that, besides the action consisting in: recruitment, guidance, transportation, transfer or sheltering "a person", other alternative modalities might have been included in the performance of the offence activity (which can be found in practice), as: paper procurement, facilitating links with other persons, who deal with the migrant trafficking etc. Moreover, maybe it was appropriate that illicit activities shouldn't have been shown in a limitative way, but enunciatively, adding the expression "either help or facilitate in any other way" so that different other activities meant to help the migrants, in the purpose of illegally crossing the Romanian state frontier will not stay outside the penal illicitness.

2. The use of the expression „a person” (regarding the „beneficiary” of the actions which form the material element of the offence) leads, interpreting the text *ad litteram*, to the conclusion that the offence is consumed each time when the offensive activity refers to a single person. *Per a contrario*, when more persons are „helped” to migrate, even in the same circumstance, it should have retain the competition of the offences, each migrant being a distinct individuality, well defined.

In this hypothesis, it still might lead to very high resulting punishments (in some situations over the ones applied for murder, or even equal to the general maximum), considering the new regulations regarding the mandatory growth in the case of offences competition, if, for example, the trafficker transports, with no right on a ship 50 illegal migrants.

In order resolve the dilemma regarding the retention of the competition or of the offensive unit, in the hypothesis of "helping" more persons who want to migrate (by the modalities foreseen in the incriminating normative), we consider that it should have been more appropriate the

⁴ Jeff Crisp, *Policy Challenges of the New Diasporas: Migrant Networks and Their Impact on Asylum Flows and Regimes*, in Neu Issues in Refugee Research, Working Paper no. 7 (Geneva, 1999), 3.

⁵ Haines Rodger, *Gender-related persecution*, in *Refugee Protection in International Law. UNHCR's Global Consultations on International Protection* (Cambridge, University Press, 2003), 319-350.

⁶ According to art. 263 P.C., migrant trafficking consist in: „(1) Recruitment, guidance, transportation, transfer or sheltering a person, in the purpose of crossing the Romanian state frontier, is punishable with prison from 2 to 7 years. (2) When the action was committed: a) in the purpose of achieving, directly or indirectly, a patrimonial use; b) by means which endanger life, integrity or health of the migrant; c) by submission of the migrant to inhuman or degrading treatments, the punishment is imprisonment from 3 to 10 years and the interdiction to practice some rights. (3) The attempt is punishable”.

introduction of a severe version, applicable to all cases in which the author facilitates the migration of more persons.

The regulation of this severe version would have the purpose to punish severely the ones who act for the facilitation of migrating more persons, which presents a social concrete danger which is higher than the case of helping one person. In the same time the extremely harsh resulting punishments would be avoided (by the appliance of the offences competition rules), which can exceed very far the specific social danger of such offences.

3. The offence regarding migrant trafficking is consumed not only by committing one (or more) of the alternative incriminating actions (in the purpose of crossing the Romanian state frontier) without this purpose ever being necessarily done.

If, however, the illegal crossing of the frontier is achieved, in the duty of the migrant trafficker, the participation to the offence foreseen by art. 262 P.C. will not be retained (committed by the migrants), because the previous activities – of helping or facilitating, by alternative methods foreseen by art. 263 P.C. – forms the contents of this previously specified offence.

We also appreciate that in the duty of the migrant trafficker, the complicity to illegal crossing of the frontier is also retained, if the crossing of the frontier is helped or facilitated by other actions (or inactions) than the ones expressly shown and limiting in the actual content of the incrimination from the art. 263 P.C.

4. Referring to the severe versions of the offence, we consider, mainly, that these might miss, because, due their certain specific characteristics, the severe circumstances are not of nature to increase in a relevant way the social danger of the acts.

Therefore, the severity element introduced by the new penal code⁷, which consists in the pursuance of a „*material use*” by the trafficker (directly or indirectly), is in reality present in almost all concrete acts, therefore if it is included in a severe version, the simple one would be achieved with an exception title.

It is obvious that in the *quasi-totality* of the cases the trafficker pursues a material use, with the hypothesis being almost excluded that the respective one would act careless, because it is not logically to risk a penal punishment, without being co-interested in a certain way.

If however does not quit this severing version, considering that it is also pertinent, then the expression ”or of any other use” should be added, because the uses which can motivate the commission of the offence might also have other nature, than the material one (sometimes more important for help).

Considering the ones shown, we appreciate that rationally it should be as severe as the one foreseen at p. 2 letter ”a” from the art. 263 P.C. to be removed, following that the social generic danger afferent to certain acts (almost all) to be reflected in the special limits of the punishment established for the simpler version.

5. Largely the same considerations are imposed in what regards to the aggravating one foreseen at art. 263 p. 2 letter ”b” P.C., considering that life, integrity and the health of the migrants are in danger in all cases (while they are involved in illegal activities), therefore the respective circumstance should have the place in the contents of the simple version, if the conclusion is reached to grant a certain penal relevance.

In reality however, there is no ration for the aggravating responsibility of the traffickers (dealers), on this consideration, whilst the migrants accept (in the purpose of achieving the illicit

⁷ Duvac Constantin, *Infrațiunile privind autoritatea și frontiera de stat din perspectiva noului Cod penal și a Codului penal în vigoare*, The penal right magazine no. 2 (2013), 31.

proposed objective) the migrating conditions, which in many cases are imposed by objective situations and not by the bad-faith of the ones who facilitate the illegal migration.

Moreover, the dealers might even have all the interest that the illegal activity (done together with the migrants) should be performed without affecting them, so that they could achieve their due advantages.

In conclusion, both dealers and the migrants act in common to achieve the same illicit purpose, imputably alike both persons (crossing illegally the frontier), the severing analysis would not have a support basis.

6. The text of the severity foreseen at art. 263 p. 2 letter "c" P.C. (regarding the submission of the migrant to inhuman or degrading treatment) refers to independent acts, which have no link to the constitutive content of the offence regarding the migrant trafficking, supposing a „*help*” from the author, within a „*cooperation*” with the migrant, in order to achieve the same illicit purpose.

The inhuman or degrading treatments do not present a more severe consequence (*praeter intentioned*) of the commission of activities performing the material element of the analysed offence, as it happens in the case of severing versions specific to certain offences and neither the modalities of person trafficking commission, as per complex offence, these activities could be performed only with intention, in real competition with the offence of migrant trafficking (if they achieve the content of some offences).

Likewise, the person who wishes to migrate illegally can quit the given "help" provided by the author, if that author has an improper conduct towards that (specifically special to the person trafficking, where the reports between parties are not of collaboration, but of dominance over the victim by the dealer), which can lead, not to the increase of social danger, but more specifically to the interruption of the "cooperation" and by default, to the offensive activity regarding migrant trafficking, considering as a result also the non-performance of the act regarding the illegal crossing of the frontier.

7. If, regarding to the three aggravating offences of migrant trafficking the entering into discussion of the opportunity of regulating them was tried, we appreciate that it also might exist another circumstance of nature to increase substantially the social danger of the respective offence, that of performing the act by a public official, through the use of his/her position.

In this way, we state that the offence foreseen by art. 264 P.C. (facilitating the illegal stay in Romania) – which is also referred to migrants, and which sanctions the facilitation of illegal "staying" in the country, not facilitating the "entrance" (as in the case of the offence foreseen by art. 263 P.C.) – is foreseen, as a severe circumstance, the performance of the act "by a public official in the practice of his/her work attributions" (letter b). The same aggravating act is also foreseen at the person trafficking (art. 210¹ p. 2 P.C.), and also in the case of certain offences, considering the fact that at the gravity of the performed actions is also added the resulting danger by violating the work attributions by the ones who are put to defend the rightful order.

That is why we consider that also in the case of the offence foreseen by art. 263 (the migrant trafficking) would be necessary to introduce the respective severity, therefore to prevent and in the same modality the performance of such acts (under certain alternative methods) by the ones who have attributions of applying the law in the field, and in the situation of performing that, they should be seriously sanctioned than the ones who do not have the quality of a public official.

CONCLUSIONS AND PROPOSALS OF *FERENDA LAW*

The problem of migrants is continuously of high interest, because, besides the ones which seek refuge in another state, due to prosecution which they were subjected by disrespecting the human rights, there are other numerous persons who migrate illegally to other states, from economic reasons (poverty, lack of employment, etc.), due to the triggering of certain armed conflicts in the countries of origin or from other causes.

Many of those persons, due to reduced knowledge, especially regarding the countries where they wish to migrate, call upon the help of „migrant traffickers” (or are recruited by them) in the purpose of achieving support in order to cross the frontier of another state.

In Romania the new penal code sanctions severely the migrant trafficking, but, as shown, the incriminating text (art. 263 P.C.) can generate some controversies regarding its interpretation and appliance in practice, therefore we appreciate as being necessary some proposals of *freneda* law.

- In the content of the simple version of the offence we consider that it might impose, *de lege ferenda*, the completion of the alternative modalities of performing actions (limitative shown) by the generic expression „*either help or facilitation in any other way*”, which would allow the sanctioning of authors for all the supporting activities of the migrants (no matter the way in which committed), in practice the dealers being able to find methods to help the migrants to achieve the purpose of crossing illegally the state frontier of Romania.
- *De lege ferenda* might also be the proposal referred to the introduction of the severity regarding the „*performance of offensive activity regarding two or more persons*”, because the author helping more persons to illegally migrate is more dangerous, and by this new regulations the dilemma of holding back the offensive units might be removed or the regulation concerning the competition of offences might apply, fact that should lead, as shown, to very high resulting punishments (even beyond the ones applied for the offence of murder), therefore exceeding the abstract degree of the offence regarding migrants trafficking.
- Having a reduced relevance in what regards to the increase of social danger and especially due to the fact that they are present in most overwhelming concrete actions (being almost indispensable, naturally, the basic version of the migrant trafficking), with the severity foreseen at p. 2 letter “a” and “b”, art. 263 P.C. can be removed from the incriminating text.
- Considering the imprecision of the expression “inhuman or degrading treatments” which can cause controversies in what regards to the determination of their area (also considering the severity contents from letter b), and also the arguments previously presented, with regard to the severity from letter c) p. 2, art. 263 P.C., we also appreciate this text that might be removed, thus introducing, eventually, the mention of retaining the competition of offences, in the situation in which the author performs some penal actions over the migrant.

According to the abovementioned arguments, we propose *de lege ferenda* and the inclusion, as a severe version, the performance of the offence foreseen by art. 263 P.C. *by a public official in the practice of work attributions*.

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THE EVOLUTION OF THE CONCEPT OF HUMAN RIGHTS ON AN INTERNATIONAL LEVEL

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ABSTRACT

THE ESSENTIAL ELEMENT OF HUMAN RIGHTS IS THAT OF ENSURING THE WELLBEING, PROGRESS, AND CIVILIZATION IN ANY STATE. BEYOND THE HISTORICAL, CULTURAL AND ECONOMICAL DIFFERENCES, AS A CONSEQUENCE OF THE CONFLICTUAL SITUATIONS RECORDED TODAY IN THE WORLD, BEING ABLE TO PUT IN DANGER THE PEACEFUL CLIMATE, STABILITY AND SECURITY, MODIFYING THE STRUCTURE OF THE RELATIONS BETWEEN MAN AND THE SOCIAL ENVIRONMENT WHICH IS CONSTANTLY EVOLVING, THE HUMAN RIGHTS HAVE BECOME ONE OF THE CENTRAL IDEAS OF THE TIME.

KEYWORDS: HUMAN RIGHTS, AGES, PROGRESS, PEACEFUL, EVOLUTION, SECURITY, PEOPLE, WORLD, ROMANIA

The human being represents, without doubt, the supreme creation of the whole world. Throughout history and everywhere on the surface of the Earth, bringing light on the human nature and his condition of existence had always been the central focus of research, concerning both the Arts, Science, Philosophy, Literature, Sculpture and Painting.

We are living in a world of paradox, in which programs about combating violence within the family are being talked about, but the family is on its way to extinction¹, it is talked about the prevention of abuses of all kinds, but there are more and more abused children, it is discussed about the right to life, but it is totally violated.

Being a social problem, whose ways of manifestation and settlement concern both the social control factors and the public opinion, the actions committed through the usage of violence seem to become more frequent and dangerous for the society and for the persons composing it, urging them towards different associations – the criminality of the “white collars”, organized crime,

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¹ The evolution of the contemporary society highlights a terrifying aspect which affects every social segment, namely criminality in general, of the violent one in particular.

terrorism and institutionalized violence, thought as specific features for the violent subcultures and professionalized crime².

Taking a look at the events that led to the disappearance of some of the most powerful empires from the world's map, to the falling of political regimes that had imposed throughout time, we will astonishingly notice that the view of a nation had been modified only after taking up weapons and starting wars, rebellions, crusades, uprisings, revolutions, cups d'etat, terrorist attacks or any other ways of extreme manifestation against the shortcomings that were more or less justified.

Ever since the beginning of World War II, when all humanity was confronting against one of the biggest and serious crises ever known in history, some of the World's states began the procedures for the founding of an new international organization which would oversee peace, justice and freedom all over the world³.

Together with the firm statement of the world organization's promoters about uniting their strength to free the world from the war's nightmares, there were also stated the first four human and peoples' rights:

- The right to the freedom of speech ;
- The right to freedom from fear;
- The right to freedom from want;
- The right to freedom of religion⁴;

This is how the new premises of a new international order were created, that were based on principles of justice and freedom, recognized in June 1945, at San Francisco, in the United Nations Charter⁵. It was stated that the promotion and obedience of the fundamental human rights, without distinction of race, sex, language, religion, represents the fundamental condition of the societies' existence and world cooperation between these, through solutionizing the international problems related to economy, society, culture and humanitarianism.

Human rights represent a philosophical concept, an almost perfect concentration of all the essential ideas that the humanist philosophy had produced starting from the Antiquity up until the present days. These are, or if not they should definitely be placed among the first of the immaterial values, made aware by humanity as universal values. In the general acceptance of this concept, human rights belong to the human nature, undoubtedly linked with these and which can not be split without sacrificing freedom, the dignity of human value, descending to a subhuman state of being, vegetative, instinctual.

However, it is impossible to give a complete, just and fair definition of the human rights phenomena, taking into consideration the multifacetedness of the phenomena and its evolution with its collateral implications and interdependences.

Looking at the facts from a historical perspective, crimes against human rights were not punishable by law, fact which lead them to be placed by some humanist visionaries, philosophers and novelists, among the aims that needed to be reached in an unspecified future.

As societies started to recognize them through declarations of principles or aims, human rights moved to a status of moral rights, the corresponding obligations not being formulated yet.

² S. Rădulescu D. Banciu, *Crime and criminality sociology* (Edyting and Press Publishing House Chance SRL, Bucharest, 1996), 186

³ Dr. Radu Demetrescu, *Human rights at third age* (Romanian Institute for Human Rights, Bucharest 1994) 37

⁴ Speech on the state of the Union, *spoken on 26th January 1941* (in Papers and Addresses of Franklin D. Roosevelt: War and Aid to Democracies), 672.

⁵ Written on 25th – 26th April 1945 and came into force on 24th October 1945 at the San Francisco conference

Later on they were integrated, one by one, in the positive right, taking into consideration the convulsions of the first decades of the XX century. The world had to go through two World Wars, among which the last one was the most devastating and despicable⁶ towards human life⁷ and dignity, so that crimes against the human fundamental rights and liberties to be punished on an international level.

Even a quick research of the evolution and meanings of the political streams of thinking, highlights the fact that freedom aspiration represented a constant feature of the whole historical process and that the preoccupation for defying the human's position in society manifested itself at the same time with the human being emerging as a thinking being. Man, as a rational being, borned free, always considered as a purpose and never as a mean, represents the supreme value on which all that represents the purposes of a politically organized society should focus on. Therefore, the best investment is and it will always be the human investment.

In the great Indian epic stories the human being was presented as having rights - Vedas, Upanisad (around 560 – 480 BC), Sutra, The Mahabharata, Ramayana and Puranas.

Confucius (Kung Fu Tzi - around 551 – 479 BC), old China promoted moderation in everything, rightness and especially humanity, these being or should be the main virtues of the individuals that form a society.

A written statement, dated back from 534 BC, is represented by a little cylinder made of clay, which through its cuneiform signs engraves Cyrus's the Great decree, who after the conquest of the Babilon granted freedom to the jews and the possibility for them to return in their homeland to preach about him.

The buddist way of thinking was looking for spiritual remedies for the evil that was hunting the people, believing that not only humans are equal but also all the living beings, everyone having the right to respect. Sakyamunii Buddha rejected discrimination among people, the existing differences being interchangeable.

In the old Egiptian culture and civilization, the Book of the Dead was a real morad code of human behaviour in life, and Ptah-hotep's teachings were waking reference to the profound realities of the human soul.

It was also stated tat violence should not be used against humans, "because they are borned from the Sun's eyes, they are God's herd."⁸

⁶ The consequences of World War II were powerfully felt in between 1945 -1950, but they were also felt in de decades that followed: - Europe was in ruins – millions of refugeeen no longer had any type of residence, the economy was in a profoun chrisis, the industrial infrastructure of the continent was mostly destroyed, it was introduced the practice of bombing the targets clearlt civil (the raids in 1939 over the cities of Frampol, Warsow); Central and East Europe and the Balkan states were under comunism; Germany loses its borders, millions af Germans and Polish moverd from the natal land, between 1 and 2 millions died in deportations in the West, and the bonbs left unexploded make the great war's consequences to be felt even at the begining of the XXI century; Japan was accupied by the USA, and Korea is divided by URSS ans USA, two regines being borned that through the adopted political led to the first conflict of the Cold War - 1951 - 1953; european colonisation ended- bloody battles were carried for the liberation of Vietnam, Netherland Eastern Indies; The Chinese Civil War; border changeings - Germany, Poland, Romania, Sovietic Union – according to wat was decided at the Postdam conference were expelled - 15 millions people, among whom 11 millions from the ex-german territories and 3,5 millions from the Sudeten area. In the Esthers Europe 4 millions polish were expelled. North Bassarabia and Bucovina, romanian territory, were taken by URSS, and North Bucovina and Buceag became part of Ukraine. In Germany dismantling and factory imports take place, coal import, and forced work is established for some germans. USA starts a process of scientific and tehnic tefth and the recruitment of specialist in different domains.

⁷ Human losts in World War II are around 72 millions milioane casualties. From them around 47 millions were victims from the civil population including 20 millions deats from starvation and war diseases.

⁸ J. Ke-Zerbo, *Histoire de l'Afrique noire* (Paris, 1978), 75

In the Ancient Greece, Plato (427 – 417 BC), in "Crito" dialogue was stating the idea that “one should not answer through law and neither do something harmful to another person no matter what he/she did to us⁹”. For Plato the idea of justice can be found both in the individual, seen as *ut singuli*, and in the way in which the city is organized, societies in which the individual takes part.

Therefore, Plato brings an important contribution in the development of the conception of necessity of an universal end eternal ensemble of rules related to the human being, making a clear distinction between ideas and culture, tradition, having a powerful character of affirmation, discovery of human rights and liberties.

In “Politics” Aristotle being in favor of democracy, was stating – “In this world everyone has his own part of virtue, of wisdom, and everyone gathered make up, one can say, a single human being with hands, legs, uncountable senses, a proportional moral and intelligence.” The crowd makes assumptions over musical peaces, poetry, one judges one aspect, the other something else, and all together judge the whole work of art¹⁰.

Aristotle was stating that "only through law someone becomes a slave or a free person, through nature people are not differed from eachother¹¹", inserting the first aspect of the idea of natural right.

In the Middle Eve the Christian philosophers develop the idea concerning the equal condition of humans, starting from the Decalogue and culminating with the absolute right of the law that centers on the laic law.

Hugo Groţius, designated as the father of the natural law, in the XVII century, showed that man is a sociable being through his nature, who aspires to live in peace with his fellows, capable to determine by himself what is usefull or harmfull for the society¹².

A significant contribution is brought in the XVIII century by Ch. L. Montesquieu who formulates a law definition in a scientific way – “The laws in the largest sense are necessary relations that derive from the nature of things and in this sense all things have their own laws”¹³ putting the bases for the ideological preparations of the French Revolution in 1789 – “as the people had given up their natural independence to live obeying the laws.”

The essence of the juridical philosophy of J.J. Rousseau is “the idea of the instauration of law’s reign, through it, of the people’s reign that is at the same time both its author and its subject - the same will power that makes the law and obeys them.” Humans are similar in dignity because the law is everyone’s, is no one’s in particular. This is why the law needs to be above people and not a man above other, because equality implies freedom, and obedience of a law that one established himself means freedom”¹⁴.

Pythagoras, the well-known philosopher stated boldly the idea that “the human is the measure of all things”¹⁵, relating all the natural and social phenomena to man.

Apart from these moral aspects, not in the least neglectable, must be highlighted that fact that Antiquity elaborated not only a comprehensive vision about the human being, including recognition of his dignity and the value of the juridical norms of conduct, but also the concept of "homo politicus", by this statemen being understood the unlimited vocation of which all people

⁹ Platon, *Oeuvres complètes, Tome Premier, Librairie Garnier Freres* (Paris, 1936), 206

¹⁰ Aristotel, *Politique, tome II, première partie, lines III - IV*, (1971), 74

¹¹ Opera sa Politique

¹² Ionel Cloşca Ion Suceava, *Human Rights Treaty*, (Ed. Europa Nova, Bucharest, 1995), 18

¹³ Corneliu Bîrsan, *Human Rights European Conention, Vol. I, Rights and Liberties* (Ed. All Beck, Bucharest, 2005), 20

¹⁴ J.J.Rousseau, *The Social Contract*, 108

¹⁵ *Philosophy Dictionary*, (Bucharest, 1978), 565

had to enjoy in order to participate in conditions of full equality in leading the city, society, state¹⁶. But same as today, few understood then that the idea of human dignity and equality should refer in an indiscriminating way to the total number of people¹⁷.

A beneficial influence over the affirmation of humanist conceptions was that of Christian religion which raised the concept of fraternity to the level of principle, of the equality of all people in front of the divinity, preaching the idea that people, in their reciprocal relationships, must show tolerance, respect for any being's right to live according to his/hers own customs, in a spirit of understanding and respect.

There also needs to be mentioned the fact that the practice of some religions, the fight against hostile faiths transformed into intolerance leading in the end to the sacrificing not only of the "heretics" but also of those accused of different heresies, of violating the norms of human conduct preached by the Church.

Under the heraldry of the great crusades are hiding some of the most horrifying crimes in history and with a cynicism raised to the level of art, they swarmed that it was God's will, forgetting that the Holy Book teaches them through Jesus Christ's parables that "God is the way, the truth and life, no one comes to the Father unless through Me."

In the Renaissance man is put on a new pedestal, rising human's value as an architect of all spiritual life. The great philosophical confrontations looked to untangle man's purpose in society as well as in history, bringing into discussion the problem of emancipating the human being.

Emmanuel Kant considered, in *Groundwork of the Metaphysics of Morals*, that man should be considered as a "purpose" and never as a "mean", and that Spinoza revealed "the changed nature of the human being."

Because France had always had a say on things, rightly Jean Jacques Rousseau, a French philosopher, stated that "man was born free, but is chained everywhere else"¹⁸, referring through this to the request of eliminating any structures or political mechanisms that could affect human dignity, and the French Revolution critically influenced the affirmation of humanist concepts through the proclamation of documents, which withstood all the time's hardships, of human fundamental rights, which ask to be obeyed and guaranteed in any democratic society.

Human rights can not be analyzed unless they are between the petals, on one hand of philosophy, which highlights the parameters of how life is organized, the search for profound answers about things, the exploration of nature's origin and their purpose, and on the other hand, of comprehensive history focusing on the general laws¹⁹ which governate the general movement of evolution.

Looked upon from a social point of view, human rights originated in Antiquity, but looked upon from a juridical point of view, these started in the natural law doctrine.

¹⁶ Prof. Univ. Dr. Victor Duculescu, *The Juridic Protection of the Human Rights*, (Ed. Lumina Lex, Bucharest, 1998) 20

¹⁷ History knew through time slavery, in all its forms, serfdom etc. The Roman jurist stated the concept of *jus naturale*, making the difference between the natural law and the civil right, believing that the civil right applies only to the members with equal rights of the city, and the natural ones apply to everyone, no matter if they are free or slaves.

¹⁸ Jean Jacques Rousseau, *The Social Contract*, (Ed. Științifică, Bucharest, 1957) 82-83

¹⁹ General economic, juridic, socio-logical, political laws

FEATURES AND PARTICULARITIES OF THE HUMAN RIGHTS CONCEPT

Beyond the historical, cultural and economical differences, as a consequence of the conflictual situations recorded today in the world, being able to put in danger²⁰ the peaceful climate, stability and security, modifying the structure of the relations between man and the social environment which is constantly evolving, the human rights have become one of the central ideas of the time.

Yet the essential element of human rights is that of ensuring the wellbeing, progress, and civilization in any state.

Even though it is placed in many portfolios on many organisations' portfolios to consider and act according to the instructions that they set for themselves, there are poor countries in Asia, Africa and on other continents²¹, where a great part of the population lives in the most terrible poverty, without being able to hope for a better life. Education, culture, health are abstract notions for them, taking into consideration the contemporary forms of slavery (the usage of children between six and eleven years old for industrial work endangering their physical and psychological development, organs processing, the use of thousand of children in armed conflicts), unemployment, pimping, prostitution etc.²²

According to the report related to human development of the year 1997:

- around 1,3 billions of people were living with an income of less than a dollar per month,
- around 1 billion were illiterate,
- over 1 billion did not have water supply,
- over 800 millions suffered from hunger or were not provided with the necessary nourishment;²³

The General Gathering of UN decreed the period 1997 – 2006 the decade of poverty eradication, and 17th October became the day of poverty eradication. Ever since The Report on Human Development offers new perspectives on some of the most urgent challenges with which humanity is confronting with – life, education, health and civil and community wellbeing are still the main problems both on a European level and on a world level.

Therefore, according to the *Global Report on Human Development - 2010*²⁴ there is no autonomous connexion between the economical growth and human progress, reported to the HDI domains indeterminate by incomes – namely education and health, like it is measured by HDI (Human Development Index).

The countries from “Top most dynamic countries” highlighted in the 2010 report, which recorded the most improvements throughout the years 1970-2010, in what concerns the HDI – they are led by Oman, which invested throughout decades its gains from energy in the education and public health system²⁵.

The other nine countries from “Top most dynamic countries” are China, Nepal, Indonesia, Saudi Arabia, Laos, Tunisia, South Korea, Algeria and Morocco. In a remarkable way China was the only country that made the “Top most dynamic countries” exclusively because its

²⁰ Armed conflicts, globalization, technological development, poverty, illiteracy, terrorism, organised crime, corruption, tax evasion, professional crime

²¹ In our country too, a part of the population lives in a terrifying poverty;

²² Armed conflicts make millions of victims, degrade the environment, lead to the loss of great quantities of financial resources, being able to start disasters which defy human rights on a large scale.

²³ Dr. Ion Diaconu, *Human Rights in the Contemporary International Law*, (2001), 444

²⁴ www.undp.ro/publications/human-development-report/2010/ro/

²⁵ www.undp.ro/publications/human-development-report/2010/ro/

performances related to incomes.²⁶ Romania together with Bulgaria, Serbia and Hungary are part of a quarter of the countries with a “degree of human development”.

Inequality - adjusted Human Development Index – taking into account disappearances related to health, education and incomes²⁷, Romania, Bulgaria and Croatia recorded losses of 10.8, 12.1, 11.3, respectively 15.3. In what it concerns life's standards and incomes of different disadvantaged groups, HDI for people from an ethnic group in Romania they are below the national average number. The Roma people's incomes represent one third of the national average number, and their rate of child death is one third higher²⁸.

In Romania the low participation of women in politics, only 9,8 %, is the promoter of sex inequality (The Gender Inequality Index - GII), being caught gender related discrepancies in what concerns the reproductive health, empowering women and their participation to the work force, even though women are almost equal in number with men relating reaching a certain level of education²⁹.

The new measurement of poverty on the year 2010, based on incomes, taking into account multiple factors at a domestic level, up to the educational access, clean water and medical care estimate that approximately:

- 1,7 billions people live in poverty³⁰
- 1,3 billions live with 1,25 dollars per day or even less.

Referring to the civic wellbeing of the countries from the European Union, Romania together with Lithuania, Latvia, and Slovakia have the lowest perception on citizens' safety.

What is the direction towards which Romania is heading if in more than two decades, Romanian's education system has remained the same?

In what concerns education:

- ✓ in 1990 – the expectations relating the tuition years were 12,5, while the effective studying period was of only 9;
- ✓ in 2010 – the tuition years were 14, 8, while the effective studying period was of only 10, 6.

Could it be enough only 1,6 years of study for an eventual evolution in twenty years for a nation?

Relating to the material wellbeing of Romania's population the situation is as it follows:

- 1990 – the national tax free income was 8.929 dollars /years
- 2000 - the national tax free income was 7.746 dollars /years
- 2010 - the national tax free income was 12.884 dollars /years

Taking into consideration the components of the Human Development Index (HDI) Romania has an index of 0.767 and is situated on the 50th place out of 169 countries. The HDI evolution in the last 25 years shows an annual growth of 0.5 % from 0,688 in 1990 to 0,767 in 2010³¹.

Human rights differ from the rest of the rights due to the five characteristics they are made of:

- universal

²⁶ But the countries from the HDI top are - Norway, Australia, New Zealand, United States, Ireland, Lichtenstein, Netherlands, Canada, Sweden and Germany.

²⁷ Having as base a study for 139 states for which there were comparative data, set on statistics principles

²⁸ *Human Development Global Report 2010*

²⁹ *Human Development Global Report 2010*

³⁰ A third of the population of the 104 countries in MPI –The Multidimensional Poverty Index - MPI- report 2010

³¹ arhiva. feuractiv.ro/uniunea-europeana/articles/displayArticle?articleID_21377/Raport-ONU-asupra-dezvoltarii-umane-Romania-se-afla-in-prima-treime-socio-economic-cetatean-ue/

- moreal
- fundamental
- priority
- abstract³²

Universal Rights

The universal character of carrier consists in the fact that they are rights which are for everyone. The carrier of these rights which have as object and purpose the individual connentions with the community from which the person belongs, remains the individual man. In these cases one can talk about the extension of the existence rights and personality development in the community dimension, without denying the possibility that the carrier of some rights to be the group, the community or the state.

Moral Rights

For the valability or existence of a moral right it is enough that the fundamental norme to be available from a moral poine of view, and a norme is available from a moral point of view if it can be justified by anyone or if it has a rational justification³³.

The moral component needs to be reflected on the positive right, through released papers – contract, constitution, laws, cour or social practice- depending in their existence on achieving and keeping a minimum of social efficiency.

Priority Rights

This feature develops from the first two, in the sense that, if there is a justification of a right against something, then there needs to be a right imposing that right. For exenple, the existence of the right to life, justifiable towards anyone, then there is a state's right to take the necessary measures to protect the life of each individual and of identifying the punishment possibilities, settlement and prevention of the conflict, born as a consequence of disobeying the initial right.

Fundamental Rights

The fundamental character brings into discussion the content of the right reported to two things:

- the possibility of ensuring the interest, necessity towards the right
- the justification of ensuting the interest, necessity toward the right.

The fundamental feature combined with the possibility of ensuring rights sets the priority on all the law system's steps, including towards the legislator. An interest or a need is fundamental if their disobeyance or injury means either death, or great sufferance, or reaching the anatomical core, entering under it inclusively the social rights that target ensuring the necessary minimum³⁴.

If a study were to be made concerning the people' need for love, one could notice that for many it is important to be loved, but there is no possibility to ensure love by law, because love can not be obtained through means of law, through the regulation of a love law, which would correspond the obligation to love, to not bring the touch of love to every individual.

³² John Rüsen, Mans-Klaus Kein, Adrian Paul Iliescu, *Human Rights at the meeting between Cultures, Socio-Human Studies* (Ed. Paralela 45, Pitești-Bucharest, 2004), 34.

³³ R. Alexy, *Dis Kurtstheorie und Menschenrechte; Recht Vernunft, Diskours. Studien zur Rechtsphilsofpie*, (Frankfurt pe Main, 1995), 127

³⁴ *Human Rights at the meeting between Cultures*, 39

Abstract Rights

Without staying too much on this topic, there needs to be highlighted only the fact that there need to be set up instances that are to be capable to make decisions with a juridical character, compulsory knowledgeable.

Therefore, the state needs to be both the court of decision and court of imposition for the achievement of human rights.

One can say without fail, that the decisive factor of social stability development, in an institution, is represented by the obedience of human rights, without forgetting that the social movements contributed to the redistribution of some rights- material, political or symbolical - in a conflict more or less opened with the political power or with the social elite, in which there are regularly used extreme conventional political tactics.

Therefore, the needs of building a social dimension appeared throughout the deepening of urgent wellbeing need, in the shape of socio-economical organization at the level of each state.

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ELEMENTS OF SPIRITUAL AUTOBIOGRAPHY IN THE LITERARY WORKS OF VIRGIL GHEORGHIU*

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ABSTRACT. *IN THIS STUDY, THE AUTHORS ANALYSE THE IMPORTANT ELEMENTS OF SPIRITUAL AUTOBIOGRAPHY IN THE LITERARY WORKS OF THE WRITER VIRGIL GHEORGHIU (1916-1992). ON THE BASIS OF THE FIERCE EXPERIENCES HE UNDERWENT IN DIFFERENT EPOCHS AND UNDER VARIOUS FORMS OF DICTATORSHIP, THE WRITER TRANSFERRED MANY ELEMENTS OF AUTOBIOGRAPHY INTO HIS NOVELS AND POEMS. AMONGST THESE ELEMENTS, SOME BELONG TO SPIRITUAL AUTOBIOGRAPHY; THEIR IMPORTANCE RESIDES BOTH IN THEIR STYLISTIC VALUE AND IN THE WAY THEY DEPICT CERTAIN ASPECTS OF HIS INNER FRAME OF MIND. THE AUTHORS SELECT ASPECTS RELATED TO THIS LITERARY AND THEOLOGICAL GENRE FROM THE TOME OF POEMS CALIGRAFIE PE ZĂPADĂ (CALLIGRAPHY ON SNOW) AND FROM VARIOUS NOVELS, SUCH AS THE TWENTY-FIFTH HOUR, THEY ANALYSE AND PRESENT THEM IN THIS RESEARCH PAPER, POINTING TO THE CHARACTERISTICS OF THE MAIN SPIRITUAL TRIBULATIONS OF THE ROMANIAN WRITER WHO EMIGRATED TO FRANCE AND WAS THEN ORDAINED PRIEST OF THE ROMANIAN COMMUNITY IN PARIS. MOREOVER, RESORTING TO SOME OF HIS WORKS' REVIEWS, THE AUTHORS TRY TO SEE HOW MUCH OF HIS AUTOBIOGRAPHY IS REVIVED IN HIS WORKS. THIS RESEARCH, A FIRST IN THE ROMANIAN SPACE, SETS OFF TO FILL A GAP IN THIS FIELD AND BRING THE PERSONALITY OF THIS ROMANIAN WRITER BACK IN THE LIMELIGHT.*

KEY WORDS: PRAYER, EXILE, DICTATORSHIP, SADNESS, GOD.

Despite his popularity during his lifetime and afterwards, the personality and literary compositions of Virgil Gheorghiu (1916-1992) are insufficiently known in today's cultural milieu of Romania³.

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However, his writings, some in French⁴, others in Romanian⁵, if analysed and reviewed⁶, can be the topic of some interesting research concerning autobiography, communism, dictatorship or others of the like.

Autobiography constitutes one of the means of research which could bring about new information. Having written his own memoirs, Gheorghiu is also mentioned in those of other authors, such as Monica Lovinescu⁷, Marin Preda⁸, Mircea Eliade, Emil Cioran or others, seldom being depicted in a flattering way. Notwithstanding, his literary compositions often include aspects of autobiography. Thus, both *The twenty-fifth hour* and its sequel, *Pourquoi m'a-t-on appelé Virgil?* (*Why am I called Virgil?*), as well as his other works touch upon his past, his state of mind when writing a tome or his spiritual undergoing. Therefore, as Constantin Cubleșan observes, "Virgil Gheorghiu's literary work falls constantly under the sign of autobiography"⁹.

Unlike literary autobiography, originating in ancient philosophical literature – in Platonism¹⁰ –, spiritual autobiography has a series of peculiarities¹¹. The authors of spiritual autobiography depict their states of inner tension, their itinerary towards God; they describe certain frames of mind and try to examine their spiritual self through writing. Having been defined starting with the confessions of Saint Augustine, this genre was very well received especially in the Western and Protestant space, through the works of mystics such as Teresa of Ávila¹², William Perkins¹³ or Dag Hammarskjöld¹⁴, and less in the Orthodox space. Nonetheless, the latter also approached it,

⁴ Some of his most important works published in France are: Constantin Virgil-Gheorghiu, *Christ au Liban. De Moïse au Palestiniens*, (Paris, Librairie Plon, 1979); Idem, *De la vingt-cinquième heure à l'heure éternelle*, (Paris, Librairie Plon, 1965); Idem, *Dieu ne recoit que le dimanche*, (Paris, Editions du Rocher, 1990); Idem, *La Condottiera*, (Paris, Librairie Plon, 1967); Idem, *La cravache*, (Paris, Librairie Plon, 1960); Idem, *La seconde chance*, translated by Livia Lamoure, (Paris, Librairie Plon, 1952); Idem, *La tunique de peau*, (Paris, Librairie Plon, 1967); Idem, *La vingt-cinquième heure*, translated by Monique Saint-Come, (Paris, Librairie Plon, 1949); Idem, *Les immortels d'Agapia*, (Paris, Librairie Plon, 1964); Idem, *Les médians de miracles*, translated by Livia Lamoure, (Paris, Plon, 1958).

⁵ See for example: Idem, *Ard malurile Nistrului*, (București, Editura Gea, 1993); Idem, *Caligrafie pe zăpadă (Operele premiate ale scriitorilor tineri români)*, (Bucharest, The Foundation for Literature and Art „King Carol the second”, 1940).

⁶ Cf. Carl Isabel Lundberg „Review – The twenty-fifth hour”, in *Manas*, vol. 3, No. 31, 1950, 5-7; Florin Manolescu, *Enciclopedia exilului literar românesc 1945-1989*, (Bucharest, Compania Press, 2003); Marinela Doina Dorobanțu, Kretz Erwin, "Exile and Interculturalism – The Case of Five French Writers of Romanian Origin", in *Studii de știință și cultură*, vol. VII, nr. 3, 2011, 111-117.

⁷ Cf. Monica Lovinescu, *Jurnal*, second edition, (Bucharest, Humanitas Press, 2003).

⁸ Marin Preda, *Viața ca o pradă*, (Bucharest, Curtea Veche Publishing House, 2010), 265-266.

⁹ Constantin Cubleșan, *Escale în croazieră. Constantin Virgil Gheorghiu*, 8.

¹⁰ Ioan Coman, „Autobiografia în literatura patristică”, in *Studii Teologice*, Second series, XXVI (1975), no. 9-10, 654. Cf. Cristian Bejan, „Filosofia ca preocupare de sine în opera lui Marcus Aurelius”, in Marcus Aurelius, *Gânduri către sine însuși*, translated by Cristian Bejan, (Bucharest, Humanitas Press, 2013), 5-58; Philippe Lejeune, *Pactul autobiografic*, translated by Irina Margareta Nistor, (Bucharest Univers Press, Bucharest, 2000).

¹¹ Pantelis Kalaitzidis, *Ortodoxie și modernitate. O introducere*, translated by Florin-Cătălin Ghiț, (Cluj-Napoca, Eikon Publishing House, 2010), 87-91; David Martin, "Rescripting Spiritual Autobiography", in *Exchange*, vol. 35, Issue 1, 2006, 93.

¹² Saint Teresa of Avila, *Castelul interior*, translated by Christian Tămaș, (Iassy, Ars Longa Press, 1995); Idem, *Cartea vieții mele*, translated by Christian Tămaș, (Iassy, European Institute Press, 1994).

¹³ D. Bruce Hindmarsh, *The Evangelical Conversion Narrative: Spiritual Autobiographies in Early Modern England*, (Oxford and New York, Oxford University Press, 2005), 98-101. Cf. W. B. Patterson, *William Perkins and the Making of a Protestant England*, (New York, Oxford University Press, 2014); Michelle Marchetti Coughlin, *The life and Writings of Mehatael Chandler Coit*, (Massachusetts, University of Massachusetts Press, 2012).

¹⁴ Bernhard Erling, *A Reader's Guide to Dag Hammarskjöld's Waymarks*, (Minnesota, St. Peter, 2010); Dag Hammarskjöld, *Markings*, (London, Faber and Faber, 1972).

creations such as the writings of Saint John of Kronstadt¹⁵ and those of Saint Silouan the Athonite¹⁶ being representative.

However, the works of Virgil Gheorghiu are not entirely dedicated to spiritual autobiography. Their peculiarity resides precisely in the fact that while being valuable, well written literary creations, they include elements of this genre. The aspects regarding the author's inner universe are presented in different ways. Thus, for instance, in the poems of his youth, he describes how unworthy he feels of the graces bestowed by God upon him and, like Peter during the wonderful fishing, asks Him to take them away. In the tome awarded in 1940 by the "King Carol" Foundation, there are two such poems, called *Rugăciune (Prayer)*, both transpierced by a strong mystical tension. In what follows, we shall quote the first of them:

"I am unworthy to bear the print / Of the tinselled shoe of the world, / Unworthy to have my verse thrive like rye. / I beg Thee, Lord, stop filling my ink cup with stars. / Take back the coats of arms made of acorn, gold and clover / Hidden under my waistcoat! / And the snow falling off my hands, / The ungrafted apricot trees and the tears in flame: white loaves of bread! / My forehead is stained with loneliness and hemlock. / Lord, take back the lips of the young woman who's kissing me... / Take back the star that I wear, my dandelion nib: / I am unworthy to have morning stars fall upon my paper!"¹⁷

Towards the end of the booklet, the second prayer, which can also be considered a spiritual autobiography, renders the turmoil of his lyrical self, which fails to fully understand the way in which God makes Himself felt in his soul and is unable to interact with Him. Even more, the states of tension He creates make him suffer, which is why he asks God to stop causing him pain:

"Who art Thou to cry upon my cheek with burning tears? / In vain was my search of Thy name amongst grass, people and words. / Yet, I fell Thee weakening my flesh, tipping over my ink cup / And Thou grieving next to me, like rye falling unto the ground. / Why criest Thou ceaselessly unto my forehead, without words, without a name? / Why, at night, threadst Thou upon my chest with stone feet? Tell me: / Is there someone from another world hidden in Thy tears? / Who sent Thee to tear apart my verse, to dampen it in blood? / I beg Thee, take away from me Thy ceaseless blizzard of embers, moans and hemlocks. / Behold, I wear my soul on my lips: take it like a song and go away, if so Thou wishst."¹⁸

The twenty-fifth hour also comprises excerpts relevant for this topic. The advice priest Traian Korugă gives to Johann Moritz before dying includes diagnoses of the society in which he lives, but also his predictions regarding the end of the world; we believe these fragments also present the author's inner states of mind and thoughts, thus being elements of spiritual autobiography:

"The meaning of life is absolutely individual and intimate. Today's society has long abandoned these truths and is heading, full speed and desperately, towards other paths. Tears of slaves have replaced the water in the river beds of the Rhine, the Danube and the Volga; these

¹⁵ Saint John of Kronstadt, *Viața mea în Hristos*, translated by Dumitru Dura, second edition, (Sibiu, „Oastea Domnului” Press, 2005).

¹⁶ Saint Silouane the Athonite, *Între iadul deznădejdiei și iadul smereniei – însemnări duhovnicești*, translated by Ioan Ică jr. (Alba-Iulia, Deisis Press, 1994); Idem, *Ecrits Spirituels – extraits*, translated by L. A. Lassus, (Begrolles en Muges, Abbaye de Bellefontaine, 1976).

¹⁷ Constantin Virgil Gheorghiu, *Caligrafie pe zăpadă*, 10.

¹⁸ Gheorghiu, *Caligrafie pe zăpadă*, 31.

tears will fill up the river beds of all the rivers in Europe and in the world, until the seas and oceans will be brimming with the bitter tears of people enslaved by technique, the state, bureaucracy and capital. Eventually, God will have mercy and save man just as He did so many times before. Meanwhile, like Noah's Ark sailed the surface of the water, so will people who kept their humanity. They will be saved. And, through them, like in the past, humanity will continue to exist."¹⁹

The prayer of the same character who, at one point is subject to an unbearable exhaustion, which makes his wish his death and ask God to put an end to his life, shows the emotions that, doubtlessly, the author himself felt in the camps where he was held prisoner:

"Everything seems to be under a spell and my mind fails to understand any more. Therefore, I wish to die! Lord, please help me die! This hour is too harsh for me. This hour belongs to life and it cannot be experienced by flesh and blood: it is the twenty-fifth hour, too late for redemption, for life and for death! Too late for everything! Lord, turn me into stone, but do not leave me here, alone! If You leave me, I will not even be able to die! Behold, my flesh and blood are dead, yet I carry on living! The world has died, and is yet alive! And we are neither ghosts, nor humans..."²⁰

Whilst assuming the role of a manifesto against any form of dictatorship²¹, *The twenty-fifth hour* is, however, a book in which the author takes a stand against certain types of lifestyle, by resorting to his own experience, which brings elements of spiritual autobiography to it. Such elements can be found in the following works as well: *De la vingt-cinquieme heure à l'heure eternelle*²² (*From the twenty-fifth hour to the eternal hour*), *La condotierra*²³ (*The condotierre*), *La cravache*²⁴ (*The horsewhip*) and other novels of his. This makes Virgil Gheorghiu – the future priest of a part of the Romanian diaspora in Paris – a remarkable representative of writers whose works comprise elements of spiritual autobiography as well.

¹⁹ Constantin Virgil Gheorghiu, *Ora 25*, translated by Elisabeta Lăsconi, (Bucharest, Grammar, 2004), 223.

²⁰ Gheorghiu, *Ora 25*, 210.

²¹ Gabriel Marcel, „Preface”, in Virgil Gheorghiu, *La vingt-cinquieme heure*, translated by Monique Saint-Come, (Paris, Librairie Plon, 1949), I-IX.

²² See: Constantin-Virgil Gheorghiu, *Tatăl meu, preotul care s-a urcat la cer- amintiri dintr-o copilărie teologică*, translated by Maria-Cornelia Ică, (Sibiu, Deisis Press, Sibiu, 2003). Cf. Ioan Ică jr., „Prefață”, in Constantin Virgil Gheorghiu, *Tatăl meu, preotul care s-a urcat la cer. Amintiri dintr-o copilărie teologică*, trad. Maria-Cornelia Ică jr., (Sibiu, Deisis Press, 1998), 5-7.

²³ This work was also translated in Romanian Language. See: Idem, *Condotiera*, translated by Georgiana Matei, (Cluj-Napoca, Renașterea Publishing House, 2011).

²⁴ See: Idem, *La cravache*.

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L2 SPANISH ACQUISITION: GALLICISMS IN ROMANIAN LEARNERS' INTERLANGUAGE

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ABSTRACT

THE COMPLEX PROCESS OF ACQUIRING SECOND / FOREIGN LANGUAGES LEADS TO THE CREATION OF A TRANSITIONAL SYSTEM, CALLED INTERLANGUAGE, THAT INCLUDES A WIDE VARIETY OF ELEMENTS AND RULES BELONGING TO THE LEARNER'S MOTHER TONGUE OR OTHER LANGUAGES. IN THIS ARTICLE, WE ANALYSE THE ROMANIAN LEARNERS' INTERLANGUAGE FROM THE ANGLE OF FRENCH-SPANISH INTERFERENCE, IN ORDER TO UNDERSTAND THE PHENOMENON AND, CONSEQUENTLY, IMPROVE THE TEACHING-LEARNING PROCESS BY PROVIDING EFFICIENT INPUT AND FEEDBACK. INTERESTINGLY, APART FROM THE INTERFERENCE OF SPANISH (L2) AND ROMANIAN (STUDENTS' L1), IN THE CORPUS THAT WE INVESTIGATED WE COULD TRACE A GREAT DEAL OF GALLICISMS (FRENCH ORIGIN ELEMENTS) AT ALL LEVELS: PRONUNCIATION, SPELLING, VOCABULARY, MORPHOLOGY AND SYNTAX. THUS, WE CAN CLAIM THAT FOREIGN LANGUAGE ACQUISITION CAN BE INFLUENCED NOT ONLY BY THE LEARNER'S L1, BUT ALSO BY OTHER FOREIGN LANGUAGES MASTERED BY THE STUDENT. THE INTERLANGUAGE IS THE RESULT OF THE COGNITIVE PROCESS OF OVERGENERALISATION, FALSE ANALOGY AND TRANSFER. BY UNDERSTANDING THESE FEATURES OF INTERLANGUAGE, FROM A THEORETICAL POINT OF VIEW, TEACHERS AND EVALUATORS CAN CORRECT THE DEVIANT USE OF LANGUAGE THROUGH PRACTICE, ACTIVITIES, DETAILED AND CONTRASTIVE EXPLANATIONS, INPUT AND CORRECTIVE FEEDBACK.

KEY WORDS: INTERFERENCE, INTERLANGUAGE, FRENCH, GALLICISMS, SPANISH (L2), ROMANIAN LEARNERS

1. INTRODUCTION

During the process of acquiring second or foreign languages, interference and transfer are two inevitable and frequent phenomena, noticeable especially in its first stages. Along with the cognitive process of overgeneralisation, they lead to a transitional system of rules, called interlanguage, which includes a variety of foreign elements that enable the learner to communicate. Our paper deals with the acquisition of Spanish by Romanian learners from the angle of cross-linguistic transfer and French-Spanish interferences, in order to describe and understand Romanian students' interlanguage. Thus, identifying and explaining the deviant use of language (errors) and

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overgeneralised rules enable us to understand the process of teaching-learning and to provide more efficient input and feedback.

Romanian students who learn Spanish as a foreign language tend to commit different types of errors as a result of the interference with Romanian, which is students' mother tongue or with other foreign languages, such as French or English. Interestingly, Romanian students' interlanguage contains a great deal of French elements (also called Gallicisms) at all levels: vocabulary, morphology, syntax, spelling and pronunciation. By highlighting these Gallicisms, teachers and evaluators can understand the phenomenon and take some measures in order to avoid these particular errors.

The paper is structured as follows. In section 2, we present some opinions on interference and foreign language learning, then, in the following section, we analyse the typology of Gallicisms and errors as a result of French interference and, finally, provide some teaching solutions.

2. THEORETICAL CONSIDERATIONS ON THE LINGUISTIC INTERFERENCE AND INTERLANGUAGE

The complexity of the language acquisition process is given by a wide range of psychological, social and biological factors, among which we can refer age, cognitive processes, such as memory and intelligence¹, individual abilities, social skills. Moreover, the native language acquisition and the second or foreign language(s) acquisition are similar processes, that share many common particularities, but they also imply different linguistic and extralinguistic factors.

Apart from the aspects mentioned above, in the process of acquiring foreign languages, we should take into account another important fact. Students have already learnt one or more languages previously, namely their mother tongue and other foreign language(s). In our case, Romanian university students, whose first language is Romanian, learn Spanish (L2) after acquiring other foreign languages, too, such as English, French, German, Italian, etc., in different social and linguistic contexts². Thus, Spanish becomes their new target-language and the whole process will be influenced by their previous linguistic experience and knowledge³.

This is the context where interlanguage appears. The concept of 'interlanguage' is defined as a transitional system of rules and evolving linguistic patterns in learner language when the he / she tries to use the target-language in order to communicate. It can be explained in terms of specific cognitive and sociolinguistic processes that shape it, such as overgeneralisation, and can include elements or rules specific to the native language⁴. Interestingly, in the analysis of interlanguage there can be identified some rules that are not traceable to the learner's L1 or not resembling to the input they have been provided with by teachers or books. This would be the case of transfer⁵ and interference with other second languages, mastered by the learner previously.

¹ Cf. Howard Gardener's Theory of Multiple Intelligences.

² Răzvan Bran (Utah, USA: *Cross-linguistic interferences in the acquisition of foreign languages by Romanian adults in Procedia of interdisciplinarity. DSCEI 2014, International Conference (Oradea), Selected Papers - Section: Humanities*, 108-117.

³ André-Marie Manga (*La noción de interlengua y el fenómeno del error en la enseñanza/aprendizaje del español como lengua extranjera*), <https://www.um.es/tonosdigital/znum21/secciones/estudios-18-nocion.htm>.

⁴ For a more detailed presentation of the influence of L1, see Swan, M., "The influence of the mother tongue on the second language vocabulary acquisition and use", in *Vocabulary: Description, Acquisition and Pedagogy*, CUP 1997, 156-180.

⁵ Kurt Kohn (1986) "The Analysis of Transfer" in: Kellerman, E., and Sharwood Smith, M. (eds.) 1986: *Crosslinguistic Influence in Second Language Acquisition*. Oxford: Pergamon Press.

Sometimes, students' oral or written productions contain errors or incorrect use of language as a consequence of overgeneralisation, lack of input, extralinguistic causes (stress, lack of attention etc.). Errors or mistakes are inevitable, as they are a "transient product of the learner's developing interlanguage"⁶ and of the cognitive process of overgeneralisation, that leads to a wide range of deviances or analogies⁷. When speaking, learners are focused on the message and meaning, not on form and grammar, and that is why they activate or generalise some rules unconsciously.

3. CORPUS

The present analysis is based on both our teaching experience and a corpus of written and oral productions. The corpus of our research is formed by more than 130 written papers and oral exams and activities, produced by first year students, who learn Spanish as a foreign language at the Faculty of Foreign Languages and Literatures (University of Bucharest). Besides Spanish, they also study other languages, such as French, English, Chinese, German, Romanian etc. We also mention that students, whose productions have been analysed, are beginners, with no previous knowledge of Spanish.

In their final exams, after three months of studying Spanish, we could identify a great deal of interferences with other languages (mainly Romanian, English and French) in the following main areas: orthography-pronunciation, vocabulary and morphosyntax. Our paper focuses on the French origin elements, so in the following part we shall discuss only the case of Gallicism, although all these interferences (Spanish L2 and Romanian L1 or English L2) mirrored in the interlanguage are interesting, too.

4. SPANISH - FRENCH INTERFERENCE IN INTERLANGUAGE: ANALYSIS OF GALLICISMS, TYPOLOGY AND POSSIBLE EXPLANATIONS

This section represents the practical part of our paper, where we classify the Gallicisms found in corpus according to the linguistic level they belong to. Moreover, we shall try to offer some possible explanations of these interferences in the light of the theoretical remarks presented in section 2.

4.1. ORTHOGRAPHY AND PRONUNCIATION

Orthography is the first level where students of Spanish encounter some problems as a consequence of transfer. They misspell some words, according to French orthography (e.g. **livro* instead of *libro*) or they mark an unnecessary accent on some words. Both Spanish and French mark the graphic accent according precise, but different rules of accentuation. Let's analyse only a few misspelled words found in the corpus:

⁶ *The Common European Framework of Reference for Languages: Learning, teaching, assessment*, 164, http://www.coe.int/t/dg4/linguistic/source/framework_en.pdf.

⁷ "Errors are due to an 'interlanguage', a simplified or distorted representation of the target competence. When the learner makes errors, his performance truly accords with his competence, which has developed characteristics different from those of L2 norms. Mistakes, on the other hand, occur in performance when a user/learner (as might be the case with a native speaker) does not bring his competences properly into action". (*The Common European Framework of Reference for Languages*, 155).

Spanish	French	Interlanguage
tele	télé	*télé / *téle / *telé
a	à	vendrá *à mi fiesta *à tiempo he visto *à Miguel

Table 1 - Spelling errors in interlanguage

From the examples above, we can notice that students of Spanish mark the graphic accent on *tele* 'television' as in French although in Spanish it does not have an accent. Another example is the preposition *a* 'to' expressing direction or time that is frequently misspelled (cf. French: *Je vais à l'université* vs. Spanish: *Voy a la universidad*), or as a mark of the [+human] Direct Object.

When speaking, students pronounce some words as in French. For instance, some final letters are not pronounced, as in French. This is the case of final *-s* and *-e*, as in *has escrito* [ha eskrito], *es* [e]. Another frequent phenomenon is nasalisation of final vowels followed by /n/: *-ín*, *-ón*, *-ión*: *canción* [kansiõ], *corazón* [korasõ] etc., although Spanish nasal vowels do not have phonological value. Nevertheless, these pronunciation errors become less frequent in a short amount of time, due to the oral input students are provided with.

4.2. LEXICON

Another area where we have identified a great deal of interferences is the lexicon. Due to the fact that Spanish, French and Romanian belong to the same family of Romance languages, similarities are very frequent, especially in the area of vocabulary. Students are aware of these formal similarities of different lexical items, due to their previous studies and everyday life experience (music, films etc.). In this context of linguistic resemblance, beginner students of Spanish who do not know a particular lexical item tend to 'borrow' them from other languages they can speak. They either use the same words, without any formal changes, or they slightly adapt the words to the Spanish morphosyntactic, phonetic or orthographic system.

Nevertheless, we should mention that the basic vocabulary does not have a similar form or the lexical items are different regarding to their form (spelling, pronunciation, etc.) and this can lead to transfer, misinterpretations, calques or utterance of false friends. The following contrastive table presents only a few examples of words that differ in Spanish, French and Romanian, in spite of belonging to the same linguistic family:

Spanish	French	Romanian
<i>padre</i>	<i>père</i>	<i>tată</i>
<i>agua</i>	<i>eau</i>	<i>apă</i>
<i>mañana</i>	<i>matin</i>	<i>măine</i>
<i>mirar</i>	<i>regarder</i>	<i>a se uita (a privi)</i>

Table 2 - A short comparison of basic vocabulary

The part of lexicon that is more likely to be similar in various languages is the common international vocabulary, including specialized terms and loan words (of French, Latin, Greek origin). Usually, they have the same root or similar pronunciation and spelling (cf. Sp. *internacional*, En. / Fr. *international*, Ro. *internațional*; Sp. / Ro. / En. *hotel*, Fr. *hôtel*; Sp. / En. *hospital*, Fr. *hôpital* Ro. *spital* etc.).

Taken into consideration the two categories of vocabulary that may be similar in different languages, students tend to make analogies in the case of other words, too. Let us take a few examples of lexical calques used by first year students. Many verbs belonging to common vocabulary, such as *parler* for *hablar*, *regarder* for *mirar*, *finir* for *acabar* / *terminar*, *devenir* for *llegar a ser*, *convertirse en*, *ofrir* for *regular*. They also use the adverb *oui* instead of *sí* or the conjunction *mais* [me] instead of *pero*, especially when speaking. Another lexical Gallicism is *matin* used for *mañana*, e.g. *en ese matin* (*esa mañana*).

4.3. MORPHOSYNTAX

In the field of morphology and syntax, we could identify some cases of interference, as well. For instance, in interlanguage the Spanish verbal flexion interferes with French, *tú *es, él *est, ellos *sont* (Sp. *tú eres, él es, ellos son*). One explanation is that, before acquiring the Spanish flexion, students are more familiar to the conjugation of French verbs, so they tend to use it to communicate.

Nominal elements are also subject of transfer: articles, pronouns and possessives. In interlanguage, some students use the following French articles: masculine, singular *le* and *les* for both masculine and feminine, plural. In the corpus, we found a great deal of interferences of French - Spanish pronominal systems (possessives, subject and clitic pronouns, interrogative and relative pronouns):

- possessive: *vendrá a *mon aniversario (mi aniversario), aniversario de *ma abuela (mi abuela), *nos padre (nuestro padre), *vos madre (vuestra madre)*;
- personal pronouns: **vous podréis, (vosotros / vosotras podréis)*;
- relative pronouns: **qui viene (que viene)*.

Another interesting situation is the use of the *de / de la* with the same function of the French partitive article. In the following example, *podemos hacer de ski*, we identify two different interferences. First of all, the word *ski* is misspelled (*esquí*), but, interestingly, the student used *de*, as a calque of the French *faire du ski*, where *du* is a partitive article. The same French article can be found in *escucho de la musique* or *de música*.

As Spanish is a pro-drop language, the use of phonetic subject is not compulsory. Interestingly, although this is a syntactic feature shared with Romanian, in both oral and written production we have noticed that learners tend to use unnecessary subject pronouns. Take the following example: *Yo me llamo Cristina*. instead of *Me llamo Cristina*, without the pronoun *yo*. In Spanish, we use the subject pronouns only when you want to insist on the subject or to make a contrast. In interlanguage, this deviant use of pronouns could be the result of the interference with languages that require a phonetic subject, such as French or English (both studied by Romanian students during high school). On the other hand, the use of pro subject (specific to French) prevailed to the pro-drop subject (specific to Spanish and Romanian).

4.4. THE RELATION BETWEEN L2 FRENCH AND L2 SPANISH: INTERFERENCE AND INTERLANGUAGE

The following figure presents the process of acquiring Spanish (L2) from the angle of interlanguage and Gallicisms. We tried to describe the relation established between French L2 and Spanish L2 reflected in Romanian students' interlanguage through the use of Gallicisms. We should emphasize that these French elements are not the only interferences which can be found in Romanian students' interlanguage. Beside them, one can identify a great deal of Romanian and English elements (morphosyntax, vocabulary, loan translations / calques etc.). First year students

learning Spanish (L2), whose oral and written productions have been analysed, have no previous knowledge of Spanish. During high school they studied other foreign languages, especially English and French, and this could be the reason why their interlanguage contains a great deal of Anglicisms and Gallicisms.

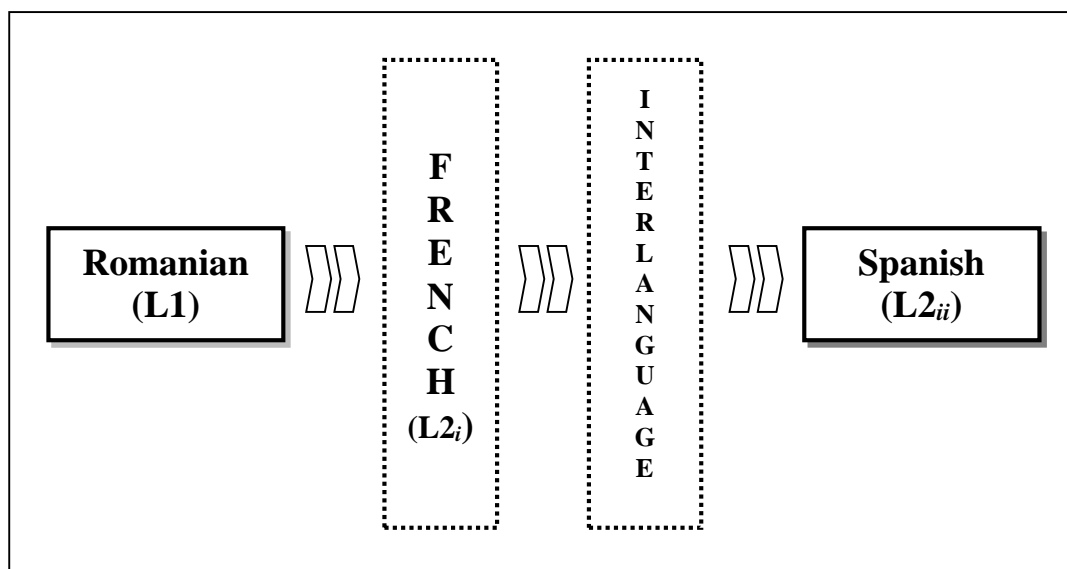


Fig. 1.

As both French and Spanish are L2 for the Romanian students, in Figure 1, we have marked French with L2_i and Spanish with L2_{ii} in order to show that French was acquired before Spanish and for a longer period of time. Thus, students tend to use previously acquired linguistic structures (rules, collocations, word order, lexical items, graphic accents etc.).

5. FINAL REMARKS AND TEACHING PROPOSALS

The research in the field of language acquisition and teaching should have practical implications. All conclusions of such investigations must lead to the improvement of the teaching methodology in order to obtain better results. In this section of our paper, we shall discuss the measures to be taken with regard to learners' mistakes and errors from the angle of the teaching process.

When dealing with errors and interlanguage, teachers should take into account two essential aspects. First of all, one essential aspect in teaching and learning foreign languages is separating the development of accuracy from the development of fluency. As we have already mentioned, errors are inevitable, that is why, at least at the beginning, it is more important to develop student's fluency and self-confidence when communicating and, only afterwards, the emphasis should lay on accuracy. If both teachers and students understand and make this distinction, the error will not be considered something bad. Moreover, teachers can work on fluency by using the active listening in class, in speaking activities.

Secondly, as *The Common European Framework of Languages* suggests, "all errors should be noted and corrected at a time when doing so does not interfere with communication"⁸. More precisely, teachers must not interfere in students' conversation or presentation each time they

⁸ *The Common European Framework of Reference for Languages: Learning, teaching, assessment*, 155

commit errors, because this would impede communication and would make students lose their confidence. For instance, the corrective feedback, if we want it efficient, must come at the end of the oral production and should present systematically the errors and explain them. In addition, students should be provided with adequate and increasing input in the target-language and corrective feedback from a teacher, native speakers or other more knowledgeable users of the language. Thus, teachers must observe the learner's interlanguage (systematic patterns or rules, frequent errors as a result of interference) in order to correct it.

We can also say that the interlanguage depends on two main factors: the native language and the other second / foreign language(s) mastered by the learner. By monitoring the interlanguage, teachers can insist on these common mistakes in order to explain, correct and make the student aware of them. The input, the exposure to authentic language and feedback play a fundamental role in correcting the deviant use of language. These should lead to the effectiveness of the teaching process in order to maximise the language acquisition. Moreover, teachers themselves should be aware of these possible errors that may occur and predict them. An important aspect is not telling the students what errors could make or present two variants, as this could confuse students. One of the main objectives of research in this field of the language acquisition is to predict the way interlanguage can develop and how to correct these errors more efficiently.

To conclude, we can claim that acquiring foreign languages is a matter of time. The deviant use of language diminishes while fluency, competency and accuracy, along with developing linguistic skills, increase through sufficient input and after a certain period of time passes.

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QUALITY THROUGH EDUCATION

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ABSTRACT:

THE PRIMARY CLIENT OF THE SCHOOL IS ULTIMATELY SOCIETY. THE STUDENT HAS THEREFORE A DUAL QUALITY: ACTIVE PARTICIPANT IN HIS OWN EDUCATION BUT ALSO THE CLIENT AND VALUE ADDED REPRESENTS THE EFFECTIVE CONTRIBUTION OF THE SCHOOL EDUCATION BEYOND THE INPUT FACTORS (STUDENTS, RESOURCES, ECONOMIC AND SOCIAL ENVIRONMENT).

KEYWORDS: ACADEMIC QUALITY, MARKETING, STRATEGY, EDUCATIONAL SERVICES.

Quality is a consequence and not a prerequisite for employment. However, where there is a constant reference to any business and more so the university, the risk of erosion and loss of land prestige in a market increasingly competitive European higher education is becoming more prominent. Who would like at least some of Romanian universities appear on privileged places in European or global classificatory systems based on academic quality and prestige? The quality at this level must be assessed by reference to the learning outcomes and training and not just by considering some indicators of "input" (educational facilities, teaching staff etc.); We should focus on the processes for obtaining the desired results.

Total quality approach is becoming increasingly popular in Romania. A statement century antique XIV clarifies that concern for quality is not recent: "If our factories will know and be able to achieve a high quality of our products, then foreigners will find it advantageous to buy from France Their money will flow to the kingdom. "(1664, Colbert, minister of Louis XIV, France). As advertising the principle of continuous improvement and improved quality of vision throughout the four major approaches to the current form: inspection, quality control, quality assurance and total quality management. The current concept of total quality means "a policy that organization tends to permanent mobilization of all its members, improve the quality of products or services they performed and the quality of the operation and its objectives in relation to the environment". So the quality required by the client (individual or company - in the case of education) and he says the word and supplier customer relationship (sic training person benefiting from it providing educational services). Orientarea the customer, leadership, involvement of people, continuous improvement They are last word in organizations and propose overall quality.

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In Japan, experts consider that at least the following two reasons why quality management plays an important role in the current business administration: allows companies to better respond to demands expressed by consumers.

As the production, distribution and communication have expanded and developed into the global economy has become increasingly easier for consumers to buy what they want, wherever and whenever they want. Low quality products gradually begin to disappear from the market. If companies want to evolve, they must adopt a new attitude towards quality management.

Companies must seek and identify consumer needs carefully and use information obtained in order to develop products and / or services with quality becoming higher; increase the efficiency of business management. Companies that focus on quality are better. Ideas are more easily generated, creativity flourishes, and labor productivity improves¹.

In the literature are found many definitions of marketing, equally relevant. Due to the nature of marketing processes, ways to implement marketing decisions, new visions of what constitutes an act of marketing and as a result of different levels of perception and approach to this aspect of the market economy, definitions and interpretation of marketing They are varied and continuously adapted to the new realities of the economic environment.

The first definition of marketing was formalized in 1935 and was adopted by the National Association of Marketing Teachers, the predecessor of the American Marketing Association (AMA). Reconfirmed in 1960, the primary definition of marketing was replaced in 1985. Definition reconsidered later in 2004 describes marketing as an organizational function and a set of processes designed to create, communicate and provides customers value and maintain relations customer the benefit of the company and its owners.

According to the official policy of the most prestigious organizations in the field, AMA definition is updated every 5 years to better respond to existing realities. The latest amendment defines marketing as the process of planning and executing the concept of product, pricing, promotion and distribution of ideas, goods and services, to create changes that satisfy individual and organizational objectives.

Educational Marketing recently constituted a distinct scientific theory capable of contributing to the development and improvement of processes occurring in education. Given that education has acquired the ability to be the object of international trade and experienced a diversification of providers according to legal forms, such specialization levels and types of programs, training models etc., requires that educational marketing a new organizational vision orientated application of tools in the economic sphere. These conditions concurrency international and national environment which runs "education business" determines makers at different levels to push up the overall approach and educational phenomenon.

Although spheres of commercial marketing and marketing services have developed significantly, with models and theories that have become universal, as a result of my investigation I found that educational marketing is still an area becoming, in the process of delimitation conceptual and asserting that requires a praxiological unsubstantiated and models that could be applied in various cultural contexts, political and socio-economic.

Considering the need for optimization and continuous improvement means that the education system can contribute to the establishment, strengthening and development of human society, it should more strongly promote educational marketing from his perspective dimensional

¹ Farrington, D. Legislative Initiatives in the context of the Bologna Process: a comparative perspective, (Bucharest: UNESCO - CEPES, 2005), 96

philosophical, procedural and methodological - assuming, implicitly, new approach to educational activities. The new vision incumbent shift from the traditional approach to learning concept that the institution and the system as a whole needs to move towards market needs and consumer requirements by achieving objectives and functions.

Knowledge of public expectations of the educational process underpinning the development of marketing strategies to ensure maximum performance of the educational offer. To the educational marketing strategies can be found all elements and aspects of the field: the educational market services / education programs, consumers. Choice of marketing strategy is a milestone in the work of any institution that completes the process in which defined the mission and aims, based on a careful analysis and the general situation in the field relevant to the particular institution and concrete. Marketing Strategy designates the main coordinates of attitude and behavior of the institution to achieve their objectives. The strategy consists of all concrete objectives set for a specific period of time, the means and methods by which they put into practice, expressing trends and requirements that are necessary to achieve stability. Performance usually develop long-term strategies, medium and short targeted, realistic detailing the appropriate tactics. In this way both institutions respond to requests immediate changes in the environment and assignment to conduct long-term, allowing a unified vision, coherent and forward-looking.

The marketing strategy should serve as a basis for formulating decisions institution aimed at enhancing its performance. For the purposes of that marketing strategy will reflect the most important aspects of Institutional scope, targeting perspective of the institution, responding to market demands and ways to respond to these requests, correlation of the resources available, choosing one way followed etc.

In the case of institutions, marketing is based on innovation, on creativity. It means that the institution to have a clear strategy to continuously invest to achieve it, to anticipate future consumer needs and satisfy them faster and better than its competitors, so as to establish close relationships with consumers long term..

To achieve these objectives, it is necessary to know the factors that act in close contact and interrelation and influence consumer behavior training. Although there are various classifications of marketing factors, the best known and applied remains the Board Ph. Kotler, who divides in social, cultural, psychological and personal².

Practice shows that, at present, the adoption of relevant decisions in any field, including that of education is directly linked to enable decision-makers to have all the information and substantiation required. In the market economy, market research can only provide such data and information that, properly used, can print decisions adopted a realistic character and can ensure success. That is why collecting information and market research are equally important in the marketing business.

In a situation in which we believe the education system a market within which enables different service providers/educational programs, the information on this market are crucial to achieve the subsequent marketing activities. Knowledge of the structure of market functioning is important in terms of demand for educational services for the institution to embark supplying the market with appropriate educational offer. In the view of marketing, market analysis requires knowledge of the main aspects that characterize: market profile, size and market dynamics of each supplier in the market place. The marketing of the institution must take into account the place that it has or intends to deal in the education market. To this end, it shall evaluate *the institution's*

² S. Ciurea, N. Dragulanescu Total Quality Management, (București: Economic Publishing House, 1995), 334-338

position in the market where it appears with its services, usually with other bidders, providers of the same services or similar services. Step entails the design characteristics of the service and its establishment of a distinct image, addressing, in particular, segment / target segments selected. Educational services indicate where the position they occupy in the minds of consumers in relation to services competition.

In the context of knowledge and competitiveness civilization when producing globalization and international competition, values and meanings acquiring transnational education, the core of which is man, intangible heritage value of any nation. Assuming that in such a society man needs skills, many of the new or radically improved over those of a decade ago, it must naturally question "Where these skills are formed and who should know the needs of the individual and society to form the most appropriate jurisdiction? Obviously, in school, in university, but also through continuing education, in the workplace or otherwise institutionalized framework³.

The difficulties facing schools today regarding the subject of quality management are the lack of strategies and policies in the field of quality management at institutional and piecemeal approach to quality assurance detrimental systemic approach, insufficient information and staff training universities all levels in quality management and quality systems, addressing quality principles identifying nonconformities and correct them instead of preventing problems, insufficient focus on the needs of customers and partners and focus on the possibilities of internal resistance to change and complexity promote change mentality, attitudes and behavior.

In management of educational institutions, the weaknesses lie in:

- Solving orientation and quality alleviate problems as they occur, and not continuously increasing quality of processes and activities that generate these problems;
- Duality of organizational structures and the trend towards self-isolation in education of staff and functional subdivisions;
- Imperfect measurement processes analysis and quality management of the institution
- Imperfect measurement processes analysis and quality management of the institution

In seeking solutions to modernize higher education reveals the interest of educational institutions towards quality management models.

The basic idea is that our higher education quality management must be radically improved, whereas external pressures of the planned "European area of higher education" and the internal requirements of national economy and culture are becoming stronger.

Quality assurance and quality management in initial education and training is an area of intervention that requires mainly the development and implementation of systems and procedures for the assessment, management and quality assurance of educational activities and initial and ongoing training and professionalization of managerial activities at level education providers

It Takes into account mainly the institutions and bidders education and training in the formal education system. The main actions planned are: the creation and development of systems of quality assurance and management in education and training; development of training programs in educational management and quality management; develop mechanisms for monitoring the insertion of graduates on the labor market to adjust the educational offer in line with developments in the labor market; creating and developing quality assurance mechanisms and management education in non formal and informal learning contexts.

³ Taylor, J. & Miroiu, A. - Policy-making, strategic planning and management on Higher Education, Papers on Higher Education, (Bucharest: UNESCO, 2002), 130-132

The quality of education in Romanian schools aimed finalities anchored in the European context paving the way for opportunities for European knowledge society. Pupils, students and teachers need to be aware of appropriate studies need to be used effectively throughout Europe.

The quality of education in Romanian schools aimed finalities anchored in the European context paving the way for opportunities for European knowledge society. Pupils, students and teachers need to be aware of appropriate studies need to be used effectively throughout Europe.

The future of higher education competitiveness and excellence must be balanced with social cohesion and freedom of access and equity united European higher education - which now comprises more than half the population of Europe - can improve the life of the whole continent.

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IMPROVING THE COMMUNICATION OF TEACHING

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ABSTRACT

FOR A LONG TIME IN EDUCATION CONCERNS FOCUSED ON CONTENT DEVELOPMENT AND TRANSMISSION OF KNOWLEDGE, IGNORING ASPECTS OF RECEPTION, OF INTERACTING. IT WAS THUS IGNORED THE FACT THAT EDUCATION INVOLVES NOT ONLY THE POWER OF INFORMATION BUT ALSO A RECEIVING PROPER UNDERSTANDING AND USE OF THAT INFORMATION, COMMUNICATION ITSELF INTERVENES ONLY WHEN THERE IS TRANSFER OF INFORMATION, NAMELY THE INFORMATION (MESSAGE) CAUSES A CORRESPONDING ACTION FROM THE RECEIVER (STUDENT, STUDENT). PRACTICAL EXPERIENCE AND MORE RECENT RESEARCH SHOWS THAT MOST PROBLEMS OCCUR IN THE HANDSET AND ATTRACT ITS CONCERN IN A RELATIONSHIP OF GENUINE DIALOGUE, BASED ON OVERCOMING CERTAIN BARRIERS OF PHYSICAL, PHYSIOLOGICAL, PSYCHOLOGICAL, PSYCHOSOCIAL, LINGUISTIC, SEMIOTIC AND CULTURAL.

KEYWORDS: COMMUNICATION, TRANSMITTER, RECEIVER, FEEDBACK, MESSAGE

INTRODUCTION

Any communication situation didactic includes in its structure, a transmitter (issuer), in the person of which the nature of things, performs the function of transmission in the broadest sense of the word, ie teacher and a receptor, active as a student (a student). Subjects or participants to share certain characteristics psychological, social, cultural and professional differentiate and influence the effects of communication (social status, personality, cultural formation, representations, experience). The award-order function of the subjects or participants in didactic communication is a relative one, because each of these partners fulfill two roles, has a dual quality, meaning that each side transmits and receives messages, depending on the role it fulfills a time in teaching communication.

Teacher characteristics refer to:

- Professional and scientific competence gained through their own training;
- Professional-pedagogical competence acquired in the course of teaching and education;
- Communicative competence (ability to use effective communication strategies, to be clear, accessible, coherent, understandable and empathetic);

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- Other characteristics (age, sex, intelligence, attitudes, value system, temperament, qualities human).
As receptor (a student), its characteristics relate to:
Mental structures;
- Verbal and nonverbal means, language immersion, etc .;
- Physical and psychological characteristics (age, sex, reception capacity, selectivity, degree of intelligence, information processing capacity, etc.).

THE CONDITIONS FOR EFFECTIVE TEACHING COMMUNICATION

Keeping always an optimum communication, teaching that effective communication involves overcoming some problems:

1. Connection or adaptation to a partner

It concerns the harmonization of relative characteristics of the two partners didactic communication. Between the transmitter (teacher) and the receiver key (a student) there are, inevitably, differences of knowledge, vocabulary skills related to the topics to be treated. Messages proposed may exceed more or less absorption capacity or available for students, their own frame of reference. They may not integrate the message understood only within the limits of their past experiences, perceptions and expectations of their abilities and their knowledge communicative dispositions and motivations own. The students will have a richer experience, so they have a better chance to establish effective communication with the caller. Therefore, claiming the party who initiates the communication to be flexible adaptive to real possibilities of the partner and sufficient ability to target messages in such a way as to develop a fairly high learning motivation. The teacher must harmonize action at the level of knowledge and experience with working language learners and teaching the message must be structured, processed and presented in accordance with their repertoire possibilities. Therefore, it is the teacher's capacity to adapt communication to the intellectual maturity of the students¹. It is obvious, however, that the group (class) must make an effort to adapt to communication teacher.

2. Assure the correspondence (equivalence) of codes

To communicate is actually convey a number of messages (content) determined, in order to induce specific effects on the receptor. Sending messages involves initially a coding process, a translation of these messages in a code, ie a system of special signs and symbols that are carrying signals meanings and significances. In fact, we refer to the use of words scientific terminology, a specialized language (mathematical symbols, chemical formulas, graphs, etc.) through which the teacher makes his knowledge, thoughts, ideas, judgments, its claims, etc. At the receiver the reverse process occurs, "re-creating" the message stated, decoding it, that a translation of the words known in meanings, meanings, ideas as accurate as printed emitter.

We can say that "the success of communication involves to some extent isomorphism of x (encoded information) and x' (information decoded) receptor giving message significance (x') is the same as for transmitter ($x = x'$)".² Sometimes, the encoding itself may be deficient, in that it

¹David P. Ausubel, Grant F.G. Robinson, , *Learning in school. An introduction to pedagogical psychology*, (Bucharest: Didactic and Pedagogic Publishing, 1981), 536

²J. Cuilenburg Jean van, Otto Scholten, Gerrit W. Noomen, *Science of communication*, (Bucharest: Humanitas, 1998), 162

can be too abstract to contain inaccuracies or ambiguities. But most problems occur in the receiver having decoding, meaning it can differ more or less information transmitted, it can not achieve isomorphism mentioned, either because of the emergence of new meanings nonexistent intention transmitter or errors in the decoding of a surplus of irrelevant information, etc. It is said that a code can not be deciphered only when both partners attribute the same meanings and meanings of signs and symbols used only if it preserves scientific meaning of words. Meaning or meanings of words does not let off so easily.

A correct decoding is possible when the receiver knows the code used by the sender (transmitter). Communication comes in a situation of identity (correspondence) code from the transmitter and receiver, ie the equivalent of correspondence. Understanding the message is related to the speed of decoding words in which it is presented. Knowing the code generally means knowing the variety of signs necessary communication: signs alphabetic, numeric, graphic, computer, etc., that knowledge we speak the language code and the specialized language specific to each discipline (scientific terminology, technological, literary - artistic, philosophical, etc.). Not knowing the code can produce at reception level, distortion, cognitive dissonance, in that employed terms have the same meanings and significances not the two partners training process. Acquiring empty words, elliptical understand the true meanings constitutes a risk and one of the sources formalism in education. Therefore, a major objective of studying any discipline and a prerequisite for overcoming the "semantic barriers" for students, is knowledge of the specialized terminology, concepts specific to each discipline in part. It should be noted that some difficulties establishing a real correspondence between concepts (ideas) expressed and perceived teacher trainees teaching in the communication from:

- Condensation of information. The message is more concentrated (with a lower redundancy)
- the more difficulties growing and decoding;
- Insufficient explanation of terms and expressions we lack exact terms transmitted. To overcome such "barriers Terminology" is necessary: to define and explanation of terms that are working, checking assigns meaning that learners these words, reducing ambiguities of expression, proofreading this when they are asked, recalling the definition appeal to the broad definition, call at

Examples synonyms, analogies, metaphors, the use of words or signals in order to explain the definition of a word, a rule etc., to suggest how to understand a statement etc.:

- Polysemy common words, widely circulated the message is played sometimes;
- Poverty of vocabulary, grammatical structures;
- Reduced imagination;
- Short-term memory, which tends to erase what binds these digressions, approximations, paraphrases and redundancies employed.

3. Contextualizing epistemological and social

Deciphering a message or understanding behavior "requires knowledge framework (context) in which they are placed, ie to know the kind of relationship the fall."³ Context exerts many influences on communication effectiveness and knowledge that context, contextualization and re-contextualization (restore context) is a basic condition for increasing the accessibility of knowledge with which it operates. It is well known that a statement may make sense in a given context and quite another sense in a changed context, as to which out of context can cause serious deformities plan reception.

³Daniel Bougnoux, *Introduction in Communication Sciences*, (Iași: Polirom, 2000), 28.

Epistemological contextualization considers that the communication recourse generally to the abstract language spoken and written out of context concrete, the real, the action has been developed, which creates prerequisites for the emergence of differences of perception, difficulty understanding to the students. The words used have a higher level of abstraction, the imprecision in revealing its meaning is greater, references are vague and communication becomes as such ambiguous. In order to ensure correspondence between the data and the ability to perceive issued learners recourse to: use demonstration material (images, graphics, etc.), using a variety of means of communication, including language-independent ones, emotional.

Psychosocial contextualization refers to the outside world communication dependence speaker and listeners, ie the social context in the book happens. Alongside the psychological context of each learner in part, determined by the status or disposition of its time, its characteristics is expected that social factor to influence individual response, the effects of communication on collective influence and effects that occur at the individual level⁴. We must agree that there are as many contexts as many students are in a classroom, but also with the idea that there are as many contexts as many classes students are working with. These contexts are also highly mobile, have their particular history and characteristics that distinguish them from all other contexts (situations). Therefore, effective communication involves teaching and adapting to the situation, the social context (psychosocial) own class or another. In addition, the teacher is required to create a favorable context, participatory and stimulating communication medium to engage students in clarifying the meaning that they make on how understanding between them, the more efficient transactions cognitive who are partakers.

4. Optimization of communication by the intervention of feedback

Professor words or messages do not always reach the destination as he thinks, messages received by learners tend to remove more or less issued or original meanings, be different sometimes. These possible deformation or distancing is due to conditions that depend on:

- Professor: properties of language, clarity of expression, proper vocabulary to students' ability, logical expression, digressions, temperament, etc.;
- Students: capacity and speed of reception, the attention, motivation obedience deficiencies or audiovisual aids, available momentary adequacy own vocabulary, etc.;

Environment: disturbances from inside (acoustics of the room) or outside (noise), means staff at their disposal, etc. School act of communication may be protected from possible variations and deviations, spacing and unwanted damage through the intervention of a barely perceptible feedback, voluntarily or involuntarily, what is felt on the route transceivers, emission-reception. Message delivered "immediately interlocutor has no meaning and significance conferred transmitter, transmission demanding a repeated and progressive adjustment according to the reactions of the interlocutor".⁵ Reverse signals that the transmitter is received, allow it to restructure or to improve speech and also to urge immediate corrections interlocutors at the wrong meanings, of any ambiguity or confusion arising. Ignoring feedback would put the transmitter unable to and could realize the difficulties and mistakes of understanding coming from others, the tense situation, the frustrations, formalism, superficiality and, ultimately, inefficiency communication. The teacher has sufficient possibilities to facilitate interventions regulators of feedback: promoting dialogue educational genuine concern for the training to trainees of skills of active listening, encouraging relationships affective empathy with them, providing an environment

⁴J. Cuilenburg, Scholten, Noomen, *Science of communication*. 239.

⁵Gilbert Leroy *Dialogue in education*, (Bucharest: Didactic and Pedagogic Publishing, 1974), 136.

for discussion and networking casually tolerant, during the lesson, the manifestation of an attitude flexible, supple and supportive to the students.

5. Active engagement in the process of reception

Teaching communication becomes effective when fosters active involvement of learner engagement with all his intellectual and emotional forces in the reception. Reception simply levying content exceeds heard. Communication of information must determine students: listen carefully, to grasp, to try to understand, to ask questions, to remember, to make associations with their previous experiences, to clarify ambiguities, anticipate, to foresee solutions, to formulate judgments, to make critical interpretations etc. The production of active speakers, learners determination to follow with interest and show an active attitude during obedience is an indicator of pedagogical competence of the teacher.

6. Empathic affection and interaction

Teaching the communication level is normal to avoid emotional distancing to the students. Act of communication must be based not only on rational arguments, but also on positive emotional elements from the speaker. By his conduct emotional welcome, closeness, friendship and understanding, enthusiasm for ideas and information that make them known speaker can enhance mood, motivation, expectation, emotional state of the receptor, enhancing thus the attitude of the latter messages to be transmitted. On the other hand, it happens to some students, the shame, the fear, the confusion, etc. not reveal their difficulties, doubt, confusion, manifest deductions, to refrain from entering into dialogue. In such a situation requires a climate of trust, honesty, collaborative approach between partners, which will cause difficulties to openly express doubts, ambiguities. Teaching becomes more efficient and the collaboration with the students becomes more fruitful, as is done with the highest level of empathy, warmth and convergence.⁶

Empathy is an essential human condition of good discipleship partner. This expresses that state which makes the teacher to identify with the feelings and thoughts of those he learns to feel and think as they feel and think learners its live emotional life of them as if they were his own, remaining calm, friendly, sensitive, kind, understanding, patient with his interlocutors, ready to put themselves in their place. Understanding the world of interacting as if they were his own, it has a direct effect on them. In terms of reciprocity, and its partners put a similar mental state, identifying with their teacher, what it says and says, seeing the qualities and virtues of the thoughts and feelings of a projection of their desires. This empathic relationship of reciprocity is usually asymmetrical, but it is a positive impact on learning and knowledge has a direct effect on the mental development of the teacher interacts with. We must keep in mind however, that excessive predominance of the emotional over the rational in building a situations of communication can lead to unwanted disturbances.

7. Adjust the speed, rhythm and speech dominance

Adjusting the speed, pace and keeps optimizing domination speech communication, but cover issues related to education and personal. Feedback can be reached within certain limits, the appropriate adjustments. In this respect, it considered that a message is not transmitted and perceived at once, but the portions, through a succession of phases ranked by intentions or meanings envisaged the construction of that message. Although the two processes - the transmitter

⁶Robert J.Davitz, Samuel Ball, *Psychology of the educational process*, (Bucharest: Didactic and Pedagogic Publishing, 1978), 346.

and receiver - operates in the same time, the two pieces are offset relative to each other. The initial perception of a portion exhibit some tendency to lag compared to the same emission portions. This means that the interpretation (decoding) that part comes emission occurs while a part of the next portion. So there is an overlapping emission part of the next portion with a perception late part of the first portion, and so on, until exhausted succession. From the above data, we can infer that as long as the exposure (explanation) Professor scroll faster than the reception inherently student experiencing some difficulties in the reconstruction of the transmitted message. Can speak in Romanian, on average about 125 words per minute; practiced only one person can be up to 500 words per minute. Some teachers may approach this performance if it finds that time is running out, thus exceeding the pace learners collecting the information transmitted. According to research undertaken in the field of language collection rate is higher in verbal stimuli and less on the nonverbal (imaging) where there are two decoding.

8. Managing of communication

This refers to the organization of communications in the classroom, ie interactions that develop here. Organizing the quantitative and qualitative aspects. The quantitative refers to communications network organization, ie: distribution of communications class, frequency and direction of trade intercom communication. Communication can to maintain relations of different types: unidirectional, bidirectional and multidirectional. The emphasis tends to be placed on the development of multidirectional communication that fosters interaction, interactivity, confronting various knowledge. Research shows that the communications network is significantly controlled classroom teacher, learner participation controlling it, the degree of freedom that is allowed and even mental operations that can use them in their work.

As for the qualitative aspects of communication organization, structuring exchanges they consider quality criteria: nature, functions and meanings. For example, cognitive circulating information aimed at different levels (factual abstract relationship, etc.), and the request cognitive activities varied: memory, understanding, interpretation, transfer, extrapolation analysis / synthesis, evaluation, converging or diverging, etc. By function exchanges can be:

- Organization of work (ordering of labor, material conditions of structuring the discussions, the focus of attention, control of discipline, etc.);
- Taxation (information, tasks, issues, methods, procedures, etc.);
- Development (guidance of thinking, suggestion of operations, stimulating processes desired inciting search and discovery, updating, inciting the imagination, classification, etc.);
- Personalization (the encouragement of students to communicate their experiences, to capitalize on the knowledge, life experience, bridging personal experience with new data, etc.);
- Stimulating motivation (inciting curiosity and interest, encouragement);
- Reward or disapproval by criticism, reprimand, threat;
- Feedback (thumbs - confirmation - or negative - denial -, correction, improvement, etc.);
- Control or evaluation.

Research shows that class communications network and structure are distinct variables of all educational processes in different circumstances and that there is a relationship between them and the students' school performance. Therefore, the network and structure of these communications must integrate logical structure, the teaching and practical training chronological activity. Starting from the analysis of communications between teacher and students, we can come to analyze

behaviors (actions manifested), to appreciate what is the profile of these behaviors, dominance behavior or another, determine how pronounced is verbalism in education, to establish the share types activities required and practiced, etc.

9. Communicative competence

Communicative competence, competence to communicate orally and in writing and communicators qualities greatly influences the effectiveness of communication (messages). Because nearly 80% of all communication events are subordinated oral communication, oral communication competence is of paramount importance in ensuring the effectiveness communicative. This is actually the reason for the development of didactics of oral communication.

The differences between learners in terms of communication possibilities are explained by different cultural, family and school students who have marked the evolution over time. You may experience some cultural contradictions between modes of communication and participation in specific school, family and community. Developing oral and written communication skills to students is a central purpose of education today and involves:

- Promote proficiency in spelling;
- Building habits and technique to express oral and listening;
- Promote an active attitude during reception of messages;
- Printing desire to continually learn to communicate with others with the group.

Build the capacity of students to communicate orally and in writing they have a duty to help all teachers, regardless of specialty. Teacher, learning should be the "accumulation of knowledge through cultural transmission,"⁷ and therefore he must prove highly communicative competence, meaning by this:

- The ability to build correct grammatical structures (sentences, phrases) and to use them effectively in teaching communication, that give them functional value, to assign meanings and significances;
- Ability to integrate communication in the context of cognitive factors, emotional and volitional;
- The ability to have knowledge about the development, construction and operation of oral and written communication logical argumentative type;
- The ability to have knowledge about the role of gestures, mimicry, silent (non-verbal behavior);
- Ability to understand the questions and opportunities.

Professor communicative meets three basic functions: facilitates, participates actively and notes (studying) the communication process. The issue of cultivation (education) communicative capacity arises not only from the teacher but also the students. This development forces the teacher to become a professional communication staff, both in terms of mastering the art of communication and in the resonating of the receiver influencing the formation of his personality in many respects.

CONCLUSIONS

It can be said that a communication situation is presented as a joint unit consisting of: lessors action, which defines the psychological side (information, communicative, emotional),

⁷Adrian Gorun, *Contributions to national education reconstruction identity. Summaries*, Publishing Academica Brancusi, Tg-Jiu, 2015, p. 70.

interactions and interrelations established between the participants, giving the social dimension of communication and material and physical conditions of transmission and content production vehicle. It is this functional integration unit, is the global force that assigns communication, allowing him to capitalize, in a pedagogical perspective, the multiple functions of language: informative, formative, educational, motivational, interactional, evaluative, regulatory, etc.

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KILLER CELL IMMUNOGLOBULIN-LIKE RECEPTORS GENES IN SERONEGATIVE SPONDYLOARTHROPATHIES

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ABSTRACT

*THE SERONEGATIVE SPONDYLOARTHROPATHIES (SPA) ARE INFLAMMATORY RHEUMATIC DISEASES WITH COMMON CLINICAL FEATURES AND GENETIC SIMILARITIES NOT LIMITED ONLY TO HLA-B27. SEVERAL STUDIES SUGGESTED THAT KILLER CELL IMMUNOGLOBULIN-LIKE RECEPTORS (KIR) GENES ARE ONE OF THE NON-MHC GENES ASSOCIATED WITH SPA, ALONG WITH ERAP1 AND IL23R. KIR GENES ENCODE REGULATING RECEPTORS WITH ACTIVATING OR INHIBITORY FUNCTION WHICH ARE EXPRESSED BY NATURAL KILLER CELLS (NK) AND SOME OF T LYMPHOCYTES. KIR MOLECULES RECOGNIZE MAJOR HISTOCOMPATIBILITY COMPLEX (MHC) CLASS I MOLECULES, MORE PRECISELY, DISTINCT SUBSETS OF HLA-A, HLA-B, HLA-C AND HLA-G ALLOTYPES, MODULATING THE REACTIVITY OF THE NK CELL. AN IMBALANCE BETWEEN ACTIVATING AND INHIBITORY KIR ALLELES KIR3DS1 AND KIR3DL1 IN THE PRESENCE OF CERTAIN HLA-B27 ALLELES (B*2705) MAY CONTRIBUTE TO ANKYLOSING SPONDYLITIS (AS) PATHOGENESIS. THE RISK OF PSORIATIC ARTHRITIS (PSA) IS INCREASED IN SUBJECTS WITH ACTIVATING KIR2DS1 AND/OR KIR2DS2 GENES PRESENT.*

THIS ARTICLE UNDERLINES THE IMPORTANCE OF KIR GENES AND THEIR COMPLEX RELATION WITH THEIR LIGANDS, ESPECIALLY WITH HLA-B27. THIS UNIQUE ENCOUNTER MAY BE DECISIVE FOR THE IMMUNO-INFLAMMATORY RESPONSE SEEN IN AS/SPA.

KEY WORDS: KILLER CELL IMMUNOGLOBULIN-LIKE RECEPTORS (KIR), SPONDYLOARTHROPATHIES (SPA), HLA-B27, ANKYLOSING SPONDYLITIS (AS).

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1. INTRODUCTION

The family of inflammatory rheumatic diseases defined as seronegative spondyloarthropathies (SpA) is formed by ankylosing spondylitis (AS), psoriatic arthritis (PsA), reactive arthritis (ReA), enteropathic arthropathy, acute anterior uveitis (AAU), juvenile spondyloarthritis and undifferentiated spondyloarthritis (uSpA)⁶. Although the most important clinical sign for the group is the inflammatory back pain, peripheral articular involvement (oligoarthritis, enthesitis) and extra-articular manifestations (uveitis, dactylitis, psoriasis or chronic inflammatory bowel disease) are present as well^{7,8}.

The association of AS with human leukocyte antigen-B27 (HLA-B27) has been documented since 1973^{9,10,11}. In recent years it has become more evident that the genetic similarities shared by the SpA patients, which mirror the common clinical profile, are not limited to the major histocompatibility complex (MHC), but they may include also non-MHC genes, such as: *ERAP1*, *IL23R* and *killer cell immunoglobulin-like receptors (KIR)* gene complex^{12,13,14,15,16}.

2. NATURAL KILLER (NK) CELLS

NK cells are bone marrow-derived lymphocytes able to recognize cells with limited HLA class I expression, leading to cytotoxicity either by release of proinflammatory cytokines or directly by release of perforins or granzyme proteases¹⁷. Discovered around the same time as the association of HLA-B27 with AS, NK cells were able to destroy cancer cells and viral-infected cells without a preliminary MHC restricted activation, and therefore they were initially considered to be "non-specific" lymphocytes^{18,19,20}.

⁶Zochling, J., and E. U. Smith. 2010. "Seronegative spondyloarthritis." *Best Pract Res Clin Rheumatol* no. 24 (6):747-56.

⁷Braun, J., and J. Sieper. 2010. "Spondyloarthritides." *Z Rheumatol* no. 69 (5):425-32.

⁸Landewe, R. B., and D. M. van der Heijde. 2011. "The recognition of patients with spondyloarthritis. New classification criteria." *Ned Tijdschr Geneesk* no. 155 (30-31).

⁹Caffrey, M. F., and D. C. James. 1973. "Human lymphocyte antigen association in ankylosing spondylitis." *Nature* no. 242 (5393):121.

¹⁰Brewerton, D. A. et al. 1973. "Ankylosing spondylitis and HL-A 27." *Lancet* no. 1 (7809):904-7.

¹¹Schlosstein, L., P. I. Terasaki, R. Bluestone, and C. M. Pearson. 1973. "High association of an HL-A antigen, W27, with ankylosing spondylitis." *N Engl J Med* no. 288 (14):704-6. doi: 10.1056/nejm19730405 2881403.

¹²Colbert, R. A. et al. 2010. "From HLA-B27 to spondyloarthritis: a journey through the ER." *Immunol Rev* no. 233 (1):181-202. doi: 10.1111/j.0105-2896.2009.00865.x..

¹³Brown, M. A. 2009. "Genetics and the pathogenesis of ankylosing spondylitis." *Curr Opin Rheumatol* no. 21 (4):318-23.

¹⁴Tsui, F. W. et al. 2014. "The genetic basis of ankylosing spondylitis: new insights into disease pathogenesis." *Appl Clin Genet* no. 7:105-15. doi: 10.2147/tacg.s37325.

¹⁵Laval, S. H., et al. 2001. "Whole-genome screening in ankylosing spondylitis: evidence of non-MHC genetic-susceptibility loci." *Am J Hum Genet* no. 68 (4):918-26. doi: 10.1086/319509

¹⁶Carter, K. W. et al. 2007. "Combined analysis of three whole genome linkage scans for Ankylosing Spondylitis." *Rheumatology (Oxford)* no. 46 (5):763-71. doi: 10.1093/rheumatology/kel443.

¹⁷Thomas, G. P., and M. A. Brown. 2010. "Genetics and genomics of ankylosing spondylitis." *Immunol Rev* no. 233 (1):162-80. doi: 10.1111/j.0105-2896.2009.00852.x.

¹⁸Rosenberg, E. B. et al. 1972. "Lymphocyte cytotoxicity reactions to leukemia-associated antigens in identical twins." *Int J Cancer* no. 9 (3):648-58.

¹⁹Herberman, R. B., M. E. Nunn, and D. H. Lavrin. 1975. "Natural cytotoxic reactivity of mouse lymphoid cells against syngeneic acid allogeneic tumors. I. Distribution of reactivity and specificity." *Int J Cancer* no. 16 (2):216-29.

²⁰Kiessling, R., E. Klein, and H. Wigzell. 1975. "Natural killer cells in the mouse. I. Cytotoxic cells with specificity for mouse Moloney leukemia cells. Specificity and distribution according to genotype." *Eur J Immunol* no. 5 (2):112-7. doi: 10.1002/eji.1830050208.

This “natural”, spontaneous way of killing target cells was explained by the “missing self recognition” hypothesis, which emerged before the discovery of NK cells receptors, and stated that NK cells would kill any target cells that lacked MHC class I molecules^{21,22}. However, the discovery of NK cells receptors system shifted the paradigm, and now NK cells are no longer regarded as “non-specific”, but rather as a group of lymphocytes with distinct specificities, determined by activating or inhibitory receptors that recognize MHC I molecules²³. MHC class I molecules are responsible for displaying antigens of “altered” cells (tumor cells or cells infected by intracellular pathogens). To evade CD8+ T cell-mediated immunity, an evolutionary adaptation led to down-regulation of MHC I molecules on the surface these cells. NK cells adapted further, being able to recognize cells with down regulated MHC I expression²⁴.

NK cells belong to innate immunity, and they are the first line of defense against intracellular pathogens via interferon (IFN)- γ production, cytolysis and apoptosis. The NK cell ability to approach a target cell is restricted by the expression of the target's MHC ligands in a complex manner that is not completely understood yet²⁵. Although NK cells are not a subset of T lymphocyte family (NK cells do not present the T cell receptor), they express Fas ligand on their surface, which binds the Fas receptor (CD95) present on the surface of the infected cells and induces Fas mediated apoptosis²⁶.

Due to their ability to interact immediately, without prior exposure to an antigen, NK cells are also essential in tumor immuno-surveillance, using alternative/non antigen-specific receptors, such as C-type lectin-like receptors (e.g., NKG2D) to mediate the lysis of tumor cells²⁷. NKG2D is an activating receptor which recognizes self-proteins that are induced in tumor cells (UL16 binding proteins – ULBP, MHC class I polypeptide-related sequence A – MICA)²⁸. Another form of cell cytotoxicity exerted by NK cells is called antibody-dependent cell-mediated cytotoxicity, which involves the recognition of antibody-coated target cells by the Fc γ receptor III (CD16).

NK cells are known to produce a wide variety of cytokines: proinflammatory (IFN- γ , TNF- α) and immunosuppressive (IL-10), as well as growth factors (granulocyte macrophage colony-stimulating factor or granulocyte colony-stimulating factor). NK cells also secrete a fair amount of chemokines, including CCL2 (MCP-1), CCL3 (MIP1- α), CCL4 (MIP1- β), CCL5 (RANTES),

²¹ Karre, K., H. G. Ljunggren, G. Piontek, and R. Kiessling. 1986. "Selective rejection of H-2-deficient lymphoma variants suggests alternative immune defence strategy." *Nature* no. 319 (6055):675-8. doi: 10.1038/319675a0.

²² Ljunggren, H. G., and K. Karre. 1990. "In search of the 'missing self': MHC molecules and NK cell recognition." *Immunol Today* no. 11 (7):237-44.

²³ O'Connor, Geraldine M., et al. 2006. "Putting the natural killer cell in its place." *Immunology* no. 117 (1):1-10. doi: 10.1111/j.1365-2567.2005.02256.x.

²⁴ Lodoen, M. B., and L. L. Lanier. 2005. "Viral modulation of NK cell immunity." *Nat Rev Microbiol* no. 3 (1):59-69. doi: 10.1038/nrmicro1066.

²⁵ Caligiuri, Michael A. 2008. "Human natural killer cells." *Blood* no. 112 (3):461-469. doi: 10.1182/blood-2007-09-077438.

²⁶ Ortaldo, J. R., R. T. Winkler-Pickett, S. Nagata, and C. F. Ware. 1997. "Fas involvement in human NK cell apoptosis: lack of a requirement for CD16-mediated events." *J Leukoc Biol* no. 61 (2):209-15.

²⁷ Terunuma, H., et al. 2008. "Potential role of NK cells in the induction of immune responses: implications for NK cell-based immunotherapy for cancers and viral infections." *Int Rev Immunol* no. 27 (3):93-110. doi: 10.1080/08830180801911743.

²⁸ Raulet, D. H., et al. 2013. "Regulation of ligands for the NKG2D activating receptor." *Annu Rev Immunol* no. 31:413-41. doi: 10.1146/annurev-immunol-032712-095951.

XCL1 (lymphotactin) and CXCL8 (IL-8)²⁹. To achieve their full cytotoxic potential NK cells require activation by several cytokines, including IL-2, IL-12³⁰, IL-15³¹ and IL-18³².

Structurally, there are two types of NK cells receptors: immunoglobulin-like superfamily receptors: killer cell immunoglobulin-like receptors (KIR), leukocyte immunoglobulin-like receptors (LILR) or FcγR III, which identify classical HLA class I proteins, such as HLA-A, HLA-B, and HLA-C, and C-type lectin like group (CD94/NKG2), that identifies the non-polymorphic HLA-E class I protein³³. (Table1).

The wide array of surface receptors controls NK cell reactivity, either by stimulating NK cell reactivity (activating receptors) or by depressing NK cell reactivity (inhibitory receptors)^{34,35}.

Table 1. NK cell surface receptors.

NK cell receptors	C-type lectin like receptors	Immunoglobulin-like superfamily receptors	
		KIR	LILR
Activating receptors	CD94/NKG2C NKR-P1C	KIR-DS family FcγR III, 2B4, NCR family	LILRA family LIR6, LIR7
Inhibitory receptors	CD94/NKG2A NKR-P1B, NKR-P1B D	KIR-DL family	LILRB family LIR1, LIR2, LIR3

There are more than 25 activating receptors which can be grouped into receptors for soluble cytokines and receptors that interact with cell surface molecules (MHC-I binding receptors and non MHC-I binding receptors). The cytokine receptors (Table 2), are involved in NK cell activation and development³⁶.

The activating receptors that interact with cell surface molecules (FcγR III, NCR family – NKp46, NKp44, NKp30, NKp80, NKG2D-S, CD94/NKG2C and KIR-DS) are responsible for exerting the multiple functions of NK cells^{37,38,39}.

²⁹ Walzer, T., et al. 2005. "Natural-killer cells and dendritic cells: "l'union fait la force"." Blood no. 106 (7):2252-8. doi: 10.1182/blood-2005-03-1154.

³⁰ Guia, S., et al. 2008. "A role for interleukin-12/23 in the maturation of human natural killer and CD56+ T cells in vivo." Blood no. 111 (10):5008-16. doi: 10.1182/blood-2007-11-122259.

³¹ Lucas, M., et al. 2007. "Dendritic cells prime natural killer cells by trans-presenting interleukin 15." Immunity no. 26 (4):503-17. doi: 10.1016/j.immuni.2007.03.006

³² Chaix, J., et al. 2008. "Cutting edge: Priming of NK cells by IL-18." J Immunol no. 181 (3):1627-31.

³³ Brown, M. A. "Genetics and the pathogenesis of ankylosing spondylitis.", 321.

³⁴ Vivier, E., J. A. Nunes, and F. Vely. 2004. "Natural killer cell signaling pathways." Science no. 306 (5701):1517-9. doi: 10.1126/science.1103478.

³⁵ Bryceson, Y. T., et al. 2006. "Activation, coactivation, and costimulation of resting human natural killer cells." Immunol Rev no. 214:73-91. doi: 10.1111/j.1600-065X.2006.00457.x.

³⁶ Vivier, Eric, et al. 2011. "Innate or Adaptive Immunity? The Example of Natural Killer Cells." Science (New York, N.Y.) no. 331 (6013):44-49. doi: 10.1126/science.1198687.

³⁷ Smith, H. R., et al. 2002. "Recognition of a virus-encoded ligand by a natural killer cell activation receptor." Proc Natl Acad Sci U S A no. 99 (13):8826-31. doi: 10.1073/pnas.092258599.

³⁸ Mandelboim, O., et al. 2001. "Recognition of haemagglutinins on virus-infected cells by NKp46 activates lysis by human NK cells." Nature no. 409 (6823):1055-60. doi: 10.1038/35059110.

³⁹ Walzer, T., et al. 2007. "Identification, activation, and selective in vivo ablation of mouse NK cells via NKp46." Proc Natl Acad Sci U S A no. 104 (9):3384-9. doi: 10.1073/pnas.0609692104.

Table 2. Additional NK cell receptors

Adhesion receptors	CD2, DNAM-1, β1 integrins, β2 integrins
Cytokine receptors	IL-1R, IL-2R, IL-12R, IL-15R, IL-18R, IL-21R, IFN- α R
Chemotactic receptors	CCR2, CCR5, CCR7, CXCR1, CXCR 3, CXCR 4, CXCR 6

The inhibitory receptors have also the two mentioned structures: the C-type lectin like group (CD94/NKG2A) and the immunoglobulin-like superfamily (KIR-L, LILRB)^{40,41}.

3. KILLER CELL IMMUNOGLOBULIN-LIKE RECEPTORS (KIR)

KIR are essential to NK cells in identifying target cells via HLA class I molecules and provide a selective cellular cytotoxicity^{42,43}. Their expression is not limited exclusively to NK cells, as KIR were also found on subsets of T cells^{44,45}. Among the NK cells receptors, KIR are probably the most complex, and this is the consequence of the remarkable allelic polymorphism that *KIR* genes present. This polymorphic variation may impact on HLA selectivity and thus, alter the NK cell immunological response^{46,47}.

The *KIR* gene cluster is located in the leucocyte receptor complex (LRC), encoded on the long arm (q) of chromosome 19 in position 13.4⁴⁸. To date, 15 *KIR* gene loci, including two pseudogenes that do not encode surface receptors (*KIR2DP1* and *KIR3DP*), have been identified⁴⁹. Although some publications refer to inhibitory *KIR3DL1* and the activating *KIR3DS1* as separate genes, they are alleles of the same locus, and for that, their alleles have a non-coinciding numbering system⁵⁰. In a similar fashion, *KIR2DL2* and *KIR2DL3* segregate as alleles of one single locus⁵¹.

⁴⁰ Vivier, Eric, "Innate or Adaptive Immunity? The Example of Natural Killer Cells.", 45.

⁴¹ Boyington, J. C., and P. D. Sun. 2002. "A structural perspective on MHC class I recognition by killer cell immunoglobulin-like receptors." *Mol Immunol* no. 38 (14):1007-21.

⁴² Cauli, A., et al. 2014. "Killer-cell immunoglobulin-like receptors (KIR) and HLA-class I heavy chains in ankylosing spondylitis." *Drug Dev Res* no. 75 Suppl 1:S15-9. doi: 10.1002/ddr.21187.

⁴³ Jiao, Y. L., et al. 2008. "Polymorphisms of KIRs gene and HLA-C alleles in patients with ankylosing spondylitis: possible association with susceptibility to the disease." *J Clin Immunol* no. 28 (4):343-9. doi: 10.1007/s10875-008-9183-6.

⁴⁴ Lanier, L. L. 2005. "NK cell recognition." *Annu Rev Immunol* no. 23:225-74. doi: 10.1146/annurev.immunol.23.021704.115526.

⁴⁵ Arlettaz, L., et al. 2004. "Expression of inhibitory KIR is confined to CD8+ effector T cells and limits their proliferative capacity." *Eur J Immunol* no. 34 (12):3413-22. doi: 10.1002/eji.200324756.

⁴⁶ Mahfouz, R. A., et al. 2009. "Distribution of killer cell immunoglobulin-like receptor (KIR) genotypes in patients with familial Mediterranean fever." *Genet Test Mol Biomarkers* no. 13 (1):91-5. doi: 10.1089/gtmb.2008.0081.

⁴⁷ Middleton, D., F. Williams, and I. A. Halfpenny. 2005. "KIR genes." *Transpl Immunol* no. 14 (3-4):135-42. doi: 10.1016/j.trim.2005.03.002.

⁴⁸ Wende, H., M. Colonna, A. Ziegler, and A. Volz. 1999. "Organization of the leukocyte receptor cluster (LRC) on human chromosome 19q13.4." *Mamm Genome* no. 10 (2):154-60.

⁴⁹ Vilches, C., and P. Parham. 2002. "KIR: diverse, rapidly evolving receptors of innate and adaptive immunity." *Annu Rev Immunol* no. 20:217-51. doi: 10.1146/annurev.immunol.20.092501.134942.

⁵⁰ Marsh, S. G., et al. 2003a. "Killer-cell immunoglobulin-like receptor (KIR) nomenclature report, 2002." *Immunogenetics* no. 55 (4):220-6. doi: 10.1007/s00251-003-0571-z.

⁵¹ Middleton, "KIR genes." 138.

KIR genes encode regulating receptors with activating or inhibitory function regarding the development, tolerance and activation of NK cells⁵². *KIR* genes variation is given by a different gene or allele content present in an individual⁵³, and this generates a vast haplotype diversity, which is responsible for a multitude of different genotypes observed in different populations⁵⁴.

Only four *KIR* genes (*KIR2DL4*, *KIR3DL2*, *KIR3DL3* and *KIR3DP1*) are consistently found in almost all individuals, and they are known as ‘framework’ genes⁵⁵. Currently, Allele Frequency Net Database^{56,57} lists 571 different *KIR* genotypes found in 18,583 individuals from 154 populations (<http://www.allelefrequenciest.net/kir6001a.asp>).

The allelic variation is even greater. The most recent 2.6.0 release (January 2015) of The European Bioinformatics Institute (EMBL-EBI) Immuno Polymorphism Database^{58,59} reports 753 *KIR* alleles (<http://www.ebi.ac.uk/ipd/kir/stats.html>). The institute in charge of naming the *KIR* genes is the Nomenclature Committee for Factors of the HLA System, a subcommittee of the World Health Organization⁶⁰. The name of a *KIR* gene reflects the molecular structure of the receptor encoded by that gene. *KIR* molecules present an extracellular segment and an intracellular segment. The extracellular segment is formed by two or three immunoglobulin-like domains (D). Thus, the first digit following the *KIR* acronym represents the number of immunoglobulin-like domains in the molecule (2D or 3D).

The intracellular segment can be either short (S) or long (L). The short (S) cytoplasmic tail contains two immunoreceptor tyrosine-based activation motifs (ITAM), which, as the name suggests, are responsible for the activating action of *KIR*. The long (L) cytoplasmic tail may have one or two immunoreceptor tyrosine-based inhibition motifs (ITIM), giving the protein its inhibitory function⁶¹. (Fig. 1).

With the exception of *KIR2DL4* gene, which encodes both motifs⁶², making *KIR2DL4* the only receptor within the family with both inhibitory and activating function, a *KIR* gene encodes either a short intracellular segment (activating motifs) *KIR* or a long intracellular segment (inhibitory motifs) *KIR*. The *KIR* pseudogenes encode an intracellular tail indicated as “P” (pseudogene). The digit after S, L or P cytoplasmic tale is the number of the gene encoding a

⁵² Caligiuri, Michael A. "Human natural killer cells." 461.

⁵³ Wilson, M. J., et al. 2000. "Plasticity in the organization and sequences of human *KIR/ILT* gene families." *Proc Natl Acad Sci U S A* no. 97 (9):4778-83. doi: 10.1073/pnas.080588597

⁵⁴ Middleton, Derek, and Faviel Gonzelez. 2010. "The extensive polymorphism of *KIR* genes." *Immunology* no. 129 (1):8-19. doi: 10.1111/j.1365-2567.2009.03208.x.

⁵⁵ Mandelboim, "Recognition of haemagglutinins on virus-infected cells by NKp46 activates lysis by human NK cells." 1057.

⁵⁶ Gonzalez-Galarza, F. F., S. Christmas, D. Middleton, and A. R. Jones. 2011. "Allele frequency net: a database and online repository for immune gene frequencies in worldwide populations." *Nucleic Acids Res* no. 39 (Database issue):D913-9. doi: 10.1093/nar/gkq1128.

⁵⁷ Gonzalez-Galarza, F. F., et al. 2015. "Allele frequency net 2015 update: new features for HLA epitopes, *KIR* and disease and HLA adverse drug reaction associations." *Nucleic Acids Res* no. 43 (Database issue):D784-8. doi: 10.1093/nar/gku1166.

⁵⁸ Robinson, J., et al. 2005. "IPD—the Immuno Polymorphism Database." *Nucleic Acids Research* no. 33 (suppl 1):D523-D526. doi: 10.1093/nar/gki032.

⁵⁹ Robinson, J., et al. 2013. "IPD—the Immuno Polymorphism Database." *Nucleic Acids Res* no. 41 (Database issue):D1234-40. doi: 10.1093/nar/gks1140/.

⁶⁰ Marsh, S. G., "Killer-cell immunoglobulin-like receptor (*KIR*) nomenclature report, 2002.", 221.

⁶¹ Middleton, Derek, "The extensive polymorphism of *KIR* genes." 9.

⁶² Rajagopalan, S., J. Fu, and E. O. Long. 2001. "Cutting edge: induction of IFN-gamma production but not cytotoxicity by the killer cell Ig-like receptor *KIR2DL4* (CD158d) in resting NK cells." *J Immunol* no. 167 (4):1877-81.

receptor with this structure⁶³. A final letter (A or B) differentiates the *KIR* genes with comparable sequences, which generate very similar protein structures (*KIR2DL5A* and *KIR2DL5B*)⁶⁴.

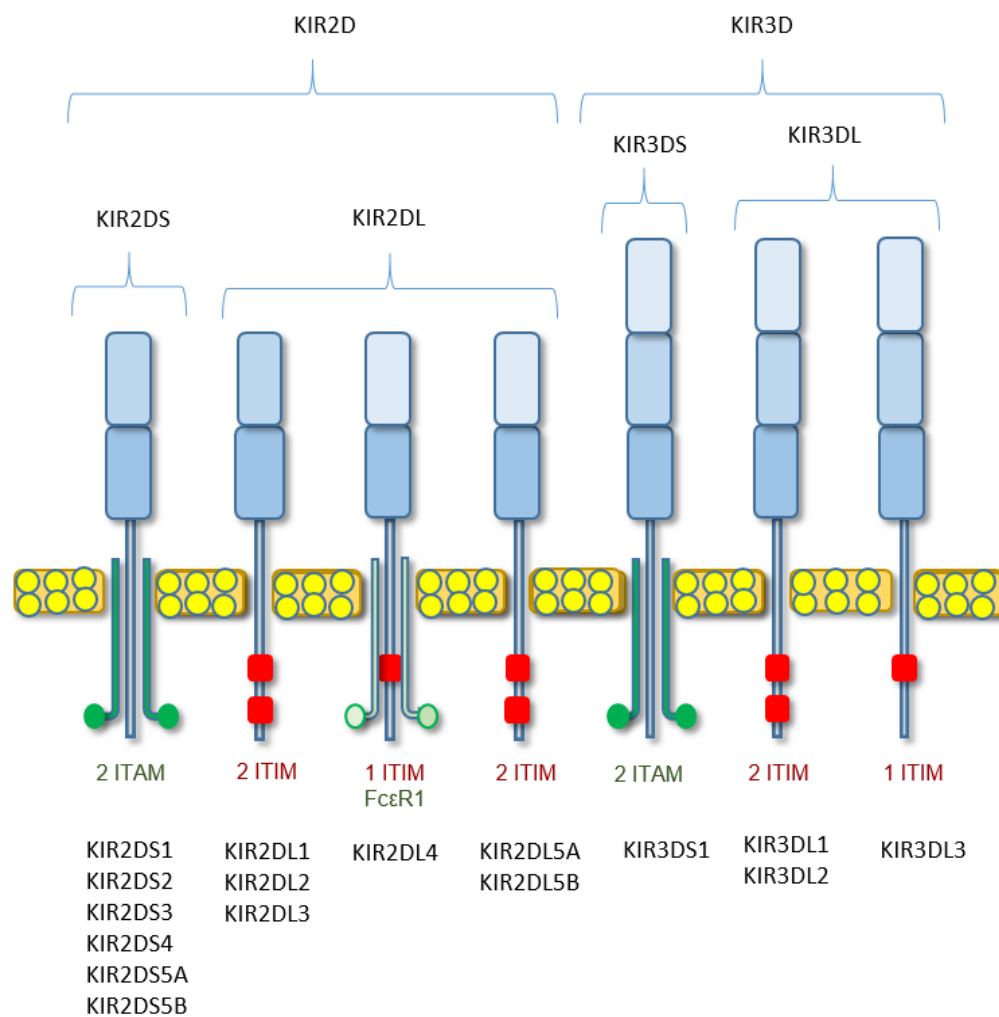


Figure 1. The structure of KIR molecules.

The numerical allelic designation is separated by the gene name with an asterisk. Similarly to the alleles of the HLA system, the first five digits indicate the alleles that differ in the exon coding sequences: the first three digits discern between alleles with non-synonymous differences, while the next two digits distinguish the alleles with synonymous differences. Finally, the last two digits distinguish alleles that only differ in a non-coding region of the sequence (e.g., intron or promoter)⁶⁵. (Fig.2).

KIR molecules seem to identify almost exclusively HLA class I molecules present on the potentially target cell, although a relatively recent study reported the direct binding of KIR3DL2

⁶³ Middleton, Derek, "The extensive polymorphism of KIR genes." 11.

⁶⁴ Gomez-Lozano, N., et al. 2002. "Some human KIR haplotypes contain two KIR2DL5 genes: KIR2DL5A and KIR2DL5B." Immunogenetics no. 54 (5):314-9. doi: 10.1007/s00251-002-0476-2.

⁶⁵ Marsh, S. G., et al. 2003b. "Killer-cell immunoglobulin-like receptor (KIR) nomenclature report, 2002." Hum Immunol no. 64 (6):648-54.

to microbial CpG oligodeoxynucleotides⁶⁶, demonstrating that KIR ligands may be also non-HLA molecules. Furthermore, not all KIR molecules have a known ligand; this is the case for KIR2DL5A/B, KIR2DS5A/B and KIR3DL3.

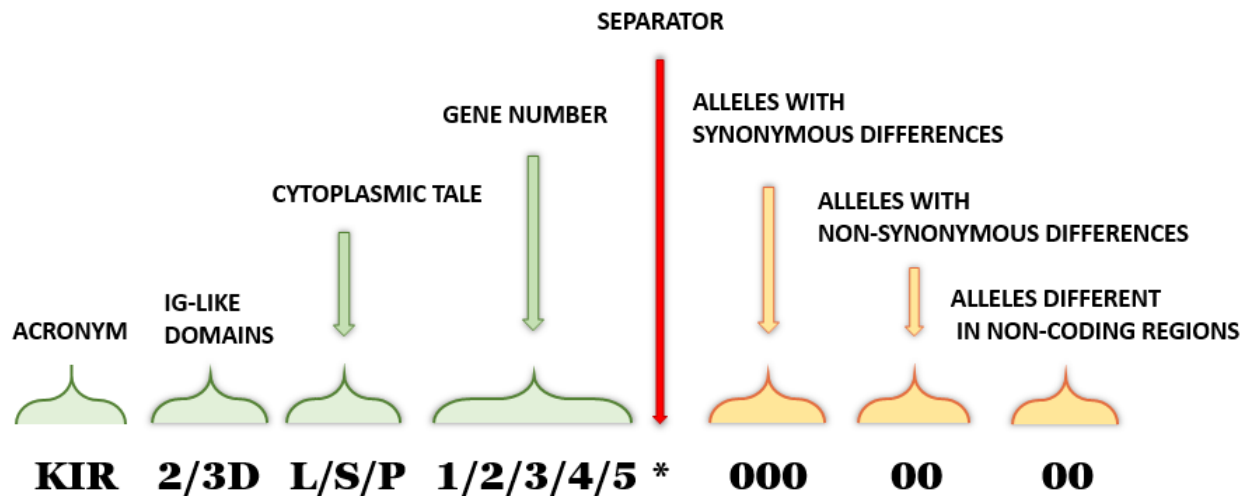


Figure 2. KIR genes and alleles nomenclature.

MHC I molecules recognized by KIR are distinct subsets of HLA-A, HLA-B, HLA-C and HLA-G allotypes^{67,68,69}. KIR recognize certain peptides within HLA polypeptide structure, without distinguishing self from non-self peptides^{70,71}. The specific ligands for KIR identified so far are presented in Table 3, but some further clarifications are needed.

Inhibitory KIR have a higher avidity than activating KIR for MHC I molecules⁷². KIR2DL1 recognizes HLA-C^{Lys80}, the so called HLA-C group 2 alleles (e.g., C*02, C*04, C*05, C*06)⁷³. KIR2DL2 and, to a weaker extent, KIR2DL3 are receptors for HLA-C^{Asn80}, known as HLA-C group 1 (e.g., C*01, C*03, C*07, C*08), but also for some HLA-C group 2 alleles and HLA-B (B*4601, B*7301)⁷⁴. KIR2DL4 recognizes HLA-G, but due to its unique structure (activating ITAM and inhibitory ITIM motifs present in the cytoplasmic tail), it is considered both activating and inhibitory receptor.

⁶⁶ Sivori, S., et al. 2010. "A novel KIR-associated function: evidence that CpG DNA uptake and shuttling to early endosomes is mediated by KIR3DL2." *Blood* no. 116 (10):1637-47. doi: 10.1182/blood-2009-12-256586.

⁶⁷ Vilches, C. "KIR: diverse, rapidly evolving receptors of innate and adaptive immunity." 233.

⁶⁸ Moesta, A. K., et al. 2008. "Synergistic polymorphism at two positions distal to the ligand-binding site makes KIR2DL2 a stronger receptor for HLA-C than KIR2DL3." *J Immunol* no. 180 (6):3969-79.

⁶⁹ Sharma, D., et al. 2009. "Dimorphic motifs in D0 and D1+D2 domains of killer cell Ig-like receptor 3DL1 combine to form receptors with high, moderate, and no avidity for the complex of a peptide derived from HIV and HLA-A*2402." *J Immunol* no. 183 (7):4569-82. doi: 10.4049/jimmunol.0901734.

⁷⁰ Lanier, L. L. "NK cell recognition." 254.

⁷¹ Biassoni, R., et al. 2001. "Human natural killer cell receptors and co-receptors." *Immunol Rev* no. 181:203-14.

⁷² Stewart, C. A., et al. 2005. "Recognition of peptide-MHC class I complexes by activating killer immunoglobulin-like receptors." *Proc Natl Acad Sci U S A* no. 102 (37):13224-9. doi: 10.1073/pnas.0503594102.

⁷³ Campbell, Kerry S., and Amanda K. Purdy. 2011. "Structure/function of human killer cell immunoglobulin-like receptors: lessons from polymorphisms, evolution, crystal structures and mutations." *Immunology* no. 132 (3):315-325. doi: 10.1111/j.1365-2567.2010.03398.x.

⁷⁴ Moesta, A. K., et al. 2008. "Synergistic polymorphism at two positions distal to the ligand-binding site makes KIR2DL2 a stronger receptor for HLA-C than KIR2DL3." *J Immunol* no. 180 (6):3969-79.

Table 3. KIR family and MHC-I ligands

Inhibitory KIR	Ligand	Activating KIR	Ligand
KIR2DL1	HLA-C ^{Lys80}	KIR2DS1	HLA-C ^{Lys80}
KIR2DL2	HLA-C ^{Asn80}	KIR2DS2	HLA-C ^{Asn80}
KIR2DL3	HLA-C ^{Asn80}	KIR2DS3	HLA-C ^{Asn80}
KIR2DL4	HLA-G	KIR2DS4	HLA-C
KIR2DL5A	Unknown	KIR2DS5A	Unknown
KIR2DL5B	Unknown	KIR2DS5B	Unknown
KIR3DL1	HLA-Bw4	KIR3DS1	HLA-Bw4 (?)
KIR3DL2	HLA-A		
KIR3DL3	Unknown		

KIR3DL1 binds to Bw4 epitopes present in certain HLA-B allotypes including HLA-B*08, HLA-B*27 and HLA-B*57, but also to HLA-A*2402⁷⁵. *KIR3DL1* gene has the most extensive polymorphisms, with 79 alleles being reported to date⁷⁶, only to match the vast diversity of the HLA-B allotypes.

KIR3DL2 recognizes certain HLA-A allotypes (A*03 and A*11)⁷⁷ and recently it was discovered that it binds even stronger to HLA-B27 free heavy chain forms (FHC), including disulfide-bonded heavy chain homodimers⁷⁸.

⁷⁵ Thananchai, H., et al. 2007. "Cutting Edge: Allele-specific and peptide-dependent interactions between KIR3DL1 and HLA-A and HLA-B." J Immunol no. 178 (1):33-7.

⁷⁶ Gonzalez-Galarza, F. F., "Allele frequency net 2015 update: new features for HLA epitopes, KIR and disease and HLA adverse drug reaction associations." 784.

⁷⁷ Campbell, Kerry S. "Structure/function of human killer cell immunoglobulin-like receptors: lessons from polymorphisms, evolution, crystal structures and mutations." 321.

⁷⁸ Wong-Baeza, I., et al. 2013. "KIR3DL2 binds to HLA-B27 dimers and free H chains more strongly than other HLA class I and promotes the expansion of T cells in ankylosing spondylitis." J Immunol no. 190 (7):3216-24. doi: 10.4049/jimmunol.1202926.

The corresponding activating KIR match more or less the ligand specificity of the inhibitory receptors, although this specificity has been less characterized and their affinity is weaker⁷⁹. Moreover, there are conflicting reports regarding the KIR3DS1 specificity for HLA-Bw4^{80,81,82}.

4. KIR AND SERONEGATIVE SPONDYLOARTHROPATHIES

In recent years there have been more and more association studies which link *KIR* genes with infectious diseases, cancer, autoimmune or idiopathic diseases and chronic inflammatory diseases⁸³. To date, in KIR and Diseases Database⁸⁴ are a total of 1180 KIR disease-association records derived from 210 articles (<http://www.allelefrequencies.net/diseases/default.asp>). KIR ability to modulate and provide activation/inhibition fine tuning⁸⁵ to the immunological response of NK cells and/or T cells, based on the interaction with MHC class I molecules, may give them a key role in the pathogenesis of many diseases associated with altered innate immune system.

Thus, *KIR* genes complex has become an interesting research area in SpA, given the known association of this group of diseases with HLA-B27 (Table 4). In 2001, the first genome wide association study (GWAS) described a strong linkage between AS and non-MHC loci on chromosome 19q, where the *KIR* genes are located⁸⁶, which was later confirmed by a meta-analysis of three whole genome linkage scans for AS⁸⁷. Given the receptor-ligand relationship between certain *KIR* (*KIR3DL1*, *-3DL2* and possible *-3DS1*) and *HLA-B* alleles, it is reasonable to assume a synergic contribution of these polymorphic loci to AS^{88,89}.

One of the first case-control association studies investigating *KIR* genes in AS involved two HLA-B27 positive Caucasian populations (Spanish and Azoreans - Portuguese)⁹⁰. The inhibitory *KIR3DL1* allele was decreased in AS patients compared with the control groups in both populations, suggesting a protective effect against the development of AS, while the activating

⁷⁹ Shegarfi, Hamid, Fatemeh Naddafi, and Abbas Mirshafiey. 2012. "Natural Killer Cells and Their Role in Rheumatoid Arthritis: Friend or Foe?" *The Scientific World Journal* no. 2012:491974. doi: 10.1100/2012/491974.

⁸⁰ O'Connor, G. M., et al. 2007. "Functional polymorphism of the KIR3DL1/S1 receptor on human NK cells." *J Immunol* no. 178 (1):235-41

⁸¹ Alter, G., et al. 2007. "Differential natural killer cell-mediated inhibition of HIV-1 replication based on distinct KIR/HLA subtypes." *J Exp Med* no. 204 (12):3027-36. doi: 10.1084/jem.20070695.

⁸² Carr, W. H., et al. 2007. "Cutting Edge: KIR3DS1, a gene implicated in resistance to progression to AIDS, encodes a DAP12-associated receptor expressed on NK cells that triggers NK cell activation." *J Immunol* no. 178 (2):647-51.

⁸³ Gonzalez-Galarza, F. F., "Allele frequency net 2015 update: new features for HLA epitopes, KIR and disease and HLA adverse drug reaction associations." 786.

⁸⁴ Takeshita, Louise Y. C., et al. 2013. "A database for curating the associations between killer cell immunoglobulin-like receptors and diseases in worldwide populations." *Database: The Journal of Biological Databases and Curation* no. 2013:bat021. doi: 10.1093/database/bat021.

⁸⁵ Falco, M., et al. 2013. "KIR and KIR ligand polymorphism: a new area for clinical applications?" *Tissue Antigens* no. 82 (6):363-73. doi: 10.1111/tan.12262.

⁸⁶ Laval, S. H., "Whole-genome screening in ankylosing spondylitis: evidence of non-MHC genetic-susceptibility loci." 922.

⁸⁷ Carter, K. W. "Combined analysis of three whole genome linkage scans for Ankylosing Spondylitis." 763.

⁸⁸ Diaz-Pena, R., M. A. Blanco-Gelaz, and C. Lopez-Larrea. 2009. "KIR genes and their role in spondyloarthropathies." *Adv Exp Med Biol* no. 649:286-99.

⁸⁹ Breban, M., et al. 2015. "Revisiting MHC genes in spondyloarthritis." *Curr Rheumatol Rep* no. 17 (6):516. doi: 10.1007/s11926-015-0516-1.

⁹⁰ Lopez-Larrea, C., et al. 2006. "Contribution of KIR3DL1/3DS1 to ankylosing spondylitis in human leukocyte antigen-B27 Caucasian populations." *Arthritis Res Ther* no. 8 (4):R101. doi: 10.1186/ar1988.

KIR3DS1 was increased⁹¹. The same group reported in 2010⁹² and 2015⁹³ similar results in studies carried out in a larger Spanish population cohort. Díaz-Peña *et al.* showed that *KIR3DS1**013 allele has a positive susceptibility to AS, while *KIR3DL1**004 allele has a negative one⁹⁴. Additionally, *KIR2DS1* gene frequency was significantly increased in AS patients compared with healthy controls⁹⁵. *KIR3DL1/3DS1* gene has become the focus of several studies realized in Asian populations where it was found to be highly polymorphic, a total of 10 *KIR3DL1* alleles and 6 *KIR3DS1* alleles being identified⁹⁶. A study that enrolled a small number of Asian patients and controls (China and Thailand) found that activating *KIR* genes are associated with AS⁹⁷. *KIR* genotype analysis showed *3DL1/3DL1* frequency decreased in AS patients versus controls, while *3DL1/3DS1* demonstrated a significantly increased frequency in AS patients in both populations⁹⁸. Another two association studies performed in Asian population found not only *KIR3DS1* allele to be associated with increased AS susceptibility, but also *KIR2DL5* and *KIR2DS1* in the presence of HLA-C group 2 alleles^{99,100}. A more recent study which investigated *KIR3DS1/3DL1* gene contribution to AS in Chinese populations confirmed an increase frequency of the activating *KIR3DS1* allele in AS patients versus controls¹⁰¹.

The importance of *KIR3DL1/3DS1* locus in AS was supported by a study involving 83 AS patients and 107 HLA-B27-positive healthy controls from the Russian population, which concluded that the presence of a functional *KIR3DL1* receptor has a protective effect against AS while the activating *KIR3DS1* receptor associates with AS development¹⁰². In the Iranian population *KIR3DL1*+*HLA-B* (*Bw4*) combination had lowers frequencies in AS patients than in controls, while, for *KIR2DS1*+*HLA-C2* combination, the opposite was true¹⁰³.

⁹¹ Lopez-Larrea, C. "Contribution of *KIR3DL1/3DS1* to ankylosing spondylitis in human leukocyte antigen-B27 Caucasian populations." 101.

⁹² Diaz-Pena, R., et al. 2010. "Association of the *KIR3DS1**013 and *KIR3DL1**004 alleles with susceptibility to ankylosing spondylitis." *Arthritis Rheum* no. 62 (4):1000-6. doi: 10.1002/art.27332.

⁹³ Diaz-Pena, R., et al. 2015. "Activating killer immunoglobulin-like receptors genes are associated with increased susceptibility to ankylosing spondylitis." *Clin Exp Immunol* no. 180 (2):201-6. doi: 10.1111/cei.12568.

⁹⁴ Diaz-Pena, R. "Association of the *KIR3DS1**013 and *KIR3DL1**004 alleles with susceptibility to ankylosing spondylitis." 1000.

⁹⁵ Diaz-Pena, R. "Activating killer immunoglobulin-like receptors genes are associated with increased susceptibility to ankylosing spondylitis." 201.

⁹⁶ Deng, Z., et al. 2015. "Allelic diversity of *KIR3DL1/3DS1* in a southern Chinese population." *Hum Immunol* no. 76 (9):663-6. doi: 10.1016/j.humimm.2015.09.017.

⁹⁷ Diaz-Pena, R., et al. 2008. "Activating *KIR* genes are associated with ankylosing spondylitis in Asian populations." *Hum Immunol* no. 69 (7):437-42. doi: 10.1016/j.humimm.2008.04.012.

⁹⁸ Diaz-Pena, "Activating *KIR* genes are associated with ankylosing spondylitis in Asian populations." 437.

⁹⁹ Jiao, Y. L., "Polymorphisms of *KIRs* gene and HLA-C alleles in patients with ankylosing spondylitis: possible association with susceptibility to the disease." 343.

¹⁰⁰ Jiao, Y. L., et al. 2010. "Polymorphisms of *KIR* gene and HLA-C alleles: possible association with susceptibility to HLA-B27-positive patients with ankylosing spondylitis." *J Clin Immunol* no. 30 (6):840-4. doi: 10.1007/s10875-010-9444-z.

¹⁰¹ Wang, S., et al. 2013. "Association of *KIR* genotype with susceptibility to HLA-B27-positive ankylosing spondylitis." *Mod Rheumatol* no. 23 (3):538-41. doi: 10.1007/s10165-012-0692-z.

¹⁰² Zvyagin, I. V., et al. 2010. "Contribution of functional *KIR3DL1* to ankylosing spondylitis." *Cell Mol Immunol* no. 7 (6):471-6. doi: 10.1038/cmi.2010.42.

¹⁰³ Tajik, N., et al. 2011. "*KIR3DL1*+*HLA-B* *Bw4*Ile80 and *KIR2DS1*+*HLA-C2* combinations are both associated with ankylosing spondylitis in the Iranian population." *Int J Immunogenet* no. 38 (5):403-9. doi: 10.1111/j.1744-313X.2011.01024.x

Table 4. Case-control association studies between KIR and SpA

Spondyloarthropathies	KIR gene association	Year, Population
Ankylosing spondylitis	<i>KIR3DL1/3DS1</i>	2006, Caucasians, (Spain, Portugal) ¹⁰⁴
	<i>KIR3DL1/3DS1</i>	2008, Asians (China and Thailand) ¹⁰⁵
	<i>KIR3DS1, KIR2DL5, KIR2DS1</i>	2008, Asians (China) ¹⁰⁶
	<i>KIR3DL1/3DS1, KIR3DL2</i>	2009, Cucasians (UK) ¹⁰⁷
	<i>KIR3DL1*004</i>	2010, Caucasians (Spanish) ¹⁰⁸
	<i>KIR3DS1*013</i>	2010, Caucasians (Russia) ¹⁰⁹
	<i>KIR3DL1/3DS1</i>	2010, Caucasians (Russia) ¹⁰⁹
	<i>KIR2DL1, KIR2DL5</i>	2010, Asians (China) ¹¹⁰
	<i>KIR3DL1/3DS1</i>	2011, Caucasians (Iran) ¹¹¹
	<i>KIR2DS1</i>	2011, Caucasians (Iran) ¹¹¹
	<i>KIR3DL1/3DS1</i>	2013, Asians (China) ¹¹²
	<i>KIR2DS1, KIR3DS1</i>	2015, Caucasians (Spain) ¹¹³
Psoriatic arthritis	<i>KIR2DS1, KIR2DS2</i>	2002, Caucasians (Canada) ¹¹⁵
	<i>KIR2DL2, KIR2DS2</i>	2014, Caucasians (Canada) ¹¹⁶

¹⁰⁴ Lopez-Larrea, C. "Contribution of KIR3DL1/3DS1 to ankylosing spondylitis in human leukocyte antigen-B27 Caucasian populations." 101.

¹⁰⁵ Diaz-Pena, R., "Activating KIR genes are associated with ankylosing spondylitis in Asian populations." 437.

¹⁰⁶ Jiao, Y. L., "Polymorphisms of KIRs gene and HLA-C alleles in patients with ankylosing spondylitis: possible association with susceptibility to the disease." 343.

¹⁰⁷ Harvey, D., et al. 2009. "Analysis of killer immunoglobulin-like receptor genes in ankylosing spondylitis." Ann Rheum Dis no. 68 (4):595-8. doi: 10.1136/ard.2008.095927

¹⁰⁸ Diaz-Pena, R. "Association of the KIR3DS1*013 and KIR3DL1*004 alleles with susceptibility to ankylosing spondylitis." 1000.

¹⁰⁹ Zvyagin, I. V., "Contribution of functional KIR3DL1 to ankylosing spondylitis." 471.

¹¹⁰ Jiao, Y. L., "Polymorphisms of KIR gene and HLA-C alleles: possible association with susceptibility to HLA-B27-positive patients with ankylosing spondylitis." 840.

¹¹¹ Tajik, N., "KIR3DL1+HLA-B Bw4Ile80 and KIR2DS1+HLA-C2 combinations are both associated with ankylosing spondylitis in the Iranian population." 403.

¹¹² Wang, S., "Association of KIR genotype with susceptibility to HLA-B27-positive ankylosing spondylitis." 538.

¹¹³ Diaz-Pena, R., "Activating killer immunoglobulin-like receptors genes are associated with increased susceptibility to ankylosing spondylitis." 201.

¹¹⁴ Vendelbosch, S., et al. 2015. "Study on the Protective Effect of the KIR3DL1 Gene in Ankylosing Spondylitis." Arthritis Rheumatol no. 67 (11):2957-65. doi: 10.1002/art.39288.

¹¹⁵ Martin, M. P., et al. 2002. "Cutting edge: susceptibility to psoriatic arthritis: influence of activating killer Ig-like receptor genes in the absence of specific HLA-C alleles." J Immunol no. 169 (6):2818-22.

¹¹⁶ Chandran, V., et al. 2014. "Killer-cell immunoglobulin-like receptor gene polymorphisms and susceptibility to psoriatic arthritis." Rheumatology (Oxford) no. 53 (2):233-9. doi: 10.1093/rheumatology/ket296.

Acute anterior uveitis	<i>KIR3DS1</i> , <i>KIR2DS1</i> , <i>KIR2DS5</i> , <i>KIR3DL1</i> <i>KIR2DL1</i>	2010, Caucasians (USA) ¹¹⁷
	<i>KIR3DL1</i>	2013, Asians (South Korea) ¹¹⁸

In contradiction with previously reported results, a UK based study which investigated *KIR3DL1*, *KIR3DS1* and *KIR3DL2* genes found no differences in *KIR* genotypes and *KIR3DL2* allele frequencies between the 200 AS patients and 405 controls¹¹⁹. The different inclusion criteria used in each study may partially explain the negative results¹²⁰. Somewhat similar findings were reported by another group from The Netherlands. Genotyping the *KIR* locus in 303 Caucasian AS patients, 119 random controls and 50 HLA-B27+ controls no significant association of any specific *KIR* gene or haplotype with susceptibility to AS was observed, although a lower number of *KIR3DL1* allele was linked with more severe AS cases, suggesting a protective effect of *KIR3DL1* against the more severe manifestations of AS¹²¹.

One study investigated *KIR* genes in patients with HLA-B27-associated AAU, with and without axial SpA. The results were unexpected, since lower frequencies were observed for the activating *KIR3DS1*, *KIR2DS1*, and *KIR2DS5* genes in AAU patients with axial SpA. Moreover, the inhibitory *KIR3DL1*+*HLA-Bw4* combination was more frequent in AAU patients than in controls ($p = 2.73 \times 10^{-28}$, $p(c) = 8.2 \times 10^{-27}$)¹²². Although these findings are diametrically opposed to the ones previously presented and the ones reported by a Korean study in UUA associated with AS¹²³, they may be the framework for an interesting hypothesis suggested by the authors: a low expression of activating *KIR* may fail to trigger an early NK cell response to clear the antigenic stimuli, and thus, their persistence may become a contributing factor to AS/SpA pathogenesis¹²⁴.

Our unpublished data showed similar results regarding the activating *KIR3DS1**013 allele. We investigated *KIR3DL1/DS1* locus in a small cohort of HLA-B27+ AS Romanian patients and HLA-B27+ matching controls. We observed a lower allele frequency for *KIR3DS1**013 in AS patients (14%) compared with controls (26%), which proved to be statistically significant ($p < 0.05$).

The study of *KIR* genes in PsA is justified not only by *KIR3DL1* and *HLA-Bw4* (including *HLA-B27*) interaction, but also by the *KIR2DL1*, *KIR2DL2*, *KIR2DS1*, *KIR2DS2* recognition of *HLA-C*, knowing that *HLA-Cw**0602 allele association with PsA is widely accepted¹²⁵. The first study to investigate *KIR* genes in PsA reported that subjects with activating *KIR2DS1* and/or

¹¹⁷ Levinson, R. D., et al. 2010. "Killer cell immunoglobulin-like receptors in HLA-B27-associated acute anterior uveitis, with and without axial spondyloarthritis." *Invest Ophthalmol Vis Sci* no. 51 (3):1505-10. doi: 10.1167/iovs.09-4232.

¹¹⁸ Moon, S. J., et al. 2013. "Diversity of killer cell immunoglobulin-like receptor genes in uveitis associated with autoimmune diseases: ankylosing spondylitis and Behcet disease." *Ocul Immunol Inflamm* no. 21 (2):135-43. doi: 10.3109/09273948.2012.754905.

¹¹⁹ Harvey, D., "Analysis of killer immunoglobulin-like receptor genes in ankylosing spondylitis." 595.

¹²⁰ Zvyagin, I. V., "Contribution of functional *KIR3DL1* to ankylosing spondylitis." 471.

¹²¹ Vendelbosch, S., "Study on the Protective Effect of the *KIR3DL1* Gene in Ankylosing Spondylitis." 2957.

¹²² Levinson, R. D., "Killer cell immunoglobulin-like receptors in HLA-B27-associated acute anterior uveitis, with and without axial spondyloarthritis." 1505.

¹²³ Moon, S. J., "Diversity of killer cell immunoglobulin-like receptor genes in uveitis associated with autoimmune diseases: ankylosing spondylitis and Behcet disease." 135.

¹²⁴ Levinson, R. D., "Killer cell immunoglobulin-like receptors in HLA-B27-associated acute anterior uveitis, with and without axial spondyloarthritis." 1505.

¹²⁵ Korendowych, E., and N. McHugh. 2005. "Genetic factors in psoriatic arthritis." *Curr Rheumatol Rep* no. 7 (4):306-12.

KIR2DS2 genes present an increase risk to developing PsA¹²⁶. The association of the *KIR2DS2* gene with PsA has been recently confirmed by a study which enrolled large cohorts of Canadian PsA patients (678) and controls (688). The risk of PsA is higher when *KIR2DS2* gene is present with the HLA-C ligands (C group 1), being the highest when *KIR2DS2* alleles are present in the absence of HLA-C ligands for homologous inhibitory *KIR*¹²⁷.

5. CONCLUSIONS

Although not all the results presented are concordant, several studies showed consistently increased frequencies of the activating *KIR2DS1* and *KIR3DS1* genes in SpA¹²⁸, at least in some particular populations (Spanish, Chinese).

The interaction of KIR3DL1/KIR3DS1 or KIR3DL2 with HLA-B27 may be one key element in AS pathogenesis. KIR3DL1 and possibly KIR3DS1 are able to bind the classical heterodimeric $\beta 2m$ / HLA-B27 heavy chain complex which presents self, viral or bacterial peptide to CD8+ T cells, as well as homodimeric HLA-B27 heavy chain ($\beta 2m$ free), while KIR3DL2 binds only homodimeric HLA-B27 heavy chains complexes^{129,130,131}, known to be expressed on antigen presenting cells in AS¹³², independent of the sequence of the presented peptides¹³³. Some viral peptides were proved to inhibit KIR3DL1 recognition of HLA-B*2705¹³⁴, thus, lowering the inhibitory signals transmitted to NK cells. An imbalance between activating and inhibitory *KIR* genes/ alleles (*KIR3DL1/DS1*) in the presence of certain *HLA-B27* alleles (B*2705) may contribute to AS pathogenesis¹³⁵.

A higher KIR3DL2 surface expression on NK and CD4+ T cells in HLA-B*2705 AS patients compared with HLA-B*2705, HLA-B*2709 and HLA-B27-negative healthy controls was reported, supporting the possible role of the KIR3DL2/HLA-B27 pair in the pathogenesis of AS¹³⁶. A stronger interaction of KIR3DL2 with free heavy chain HLA-B27 may lead to a decreased IFN- γ production by NK cells, but also an increased proliferation and a greater survival of NK cells

¹²⁶ Martin, M. P., "Cutting edge: susceptibility to psoriatic arthritis: influence of activating killer Ig-like receptor genes in the absence of specific HLA-C alleles." 2818.

¹²⁷ Chandran, V., "Killer-cell immunoglobulin-like receptor gene polymorphisms and susceptibility to psoriatic arthritis." 233.

¹²⁸ Diaz-Pena, R., "Activating killer immunoglobulin-like receptors genes are associated with increased susceptibility to ankylosing spondylitis." 201.

¹²⁹ Cauli, A., "Killer-cell immunoglobulin-like receptors (KIR) and HLA-class I heavy chains in ankylosing spondylitis." 15.

¹³⁰ Wong-Baeza, I., "KIR3DL2 binds to HLA-B27 dimers and free H chains more strongly than other HLA class I and promotes the expansion of T cells in ankylosing spondylitis." 3216.

¹³¹ Kollnberger, S., et al 2007. "Interaction of HLA-B27 homodimers with KIR3DL1 and KIR3DL2, unlike HLA-B27 heterotrimers, is independent of the sequence of bound peptide." Eur J Immunol no. 37 (5):1313-22. doi: 10.1002/eji.200635997.

¹³² Kollnberger, S., et al. 2002. "Cell-surface expression and immune receptor recognition of HLA-B27 homodimers." Arthritis Rheum no. 46 (11):2972-82. doi: 10.1002/art.10605.

¹³³ Kollnberger, S., "Interaction of HLA-B27 homodimers with KIR3DL1 and KIR3DL2, unlike HLA-B27 heterotrimers, is independent of the sequence of bound peptide." 1313.

¹³⁴ Stewart-Jones, G. B., et al. 2005. "Crystal structures and KIR3DL1 recognition of three immunodominant viral peptides complexed to HLA-B*2705." Eur J Immunol no. 35 (2):341-51. doi: 10.1002/eji.200425724.

¹³⁵ Diaz-Pena, R., "KIR genes and their role in spondyloarthropathies." 286.

¹³⁶ Cauli, A., "Killer-cell immunoglobulin-like receptors (KIR) and HLA-class I heavy chains in ankylosing spondylitis." 15.

and CD4+ T cell in SpA patients¹³⁷. Similarly, SpA patients had an increased number of NK cells expressing KIR3DL2 compared with controls. Moreover, KIR3DL2+ NK cells of SpA patients were activated, protected from apoptosis and showed a greater cytotoxicity than those from controls¹³⁸.

It was suggested that the limited production of IFN- γ by NK cells, secondary to KIR3DL2 binding to HLA-B27 free heavy chain, could promote the differentiation of proinflammatory Th17 in AS/SpA¹³⁹. It was reported that KIR3DL2/HLA-B27 free heavy chain interaction stimulates the survival, proliferation and IL-17 production of KIR3DL2+ CD4+ T cells¹⁴⁰.

These results underline the importance of KIR and their complex relation with MHC class I molecules, especially with HLA-B27. This unique encounter may be the decisive, pivotal point which dictates the immuno-inflammatory response seen in AS/SpA.

¹³⁷ Wong-Baeza, I., "KIR3DL2 binds to HLA-B27 dimers and free H chains more strongly than other HLA class I and promotes the expansion of T cells in ankylosing spondylitis." 3216.

¹³⁸ Chan, A. T., et al. 2005. "Expansion and enhanced survival of natural killer cells expressing the killer immunoglobulin-like receptor KIR3DL2 in spondylarthritis." *Arthritis Rheum* no. 52 (11):3586-95. doi: 10.1002/art.21395.

¹³⁹ Wong-Baeza, I., "KIR3DL2 binds to HLA-B27 dimers and free H chains more strongly than other HLA class I and promotes the expansion of T cells in ankylosing spondylitis." 3216.

¹⁴⁰ Bowness, P., et al. 2011. "Th17 cells expressing KIR3DL2+ and responsive to HLA-B27 homodimers are increased in ankylosing spondylitis." *J Immunol* no. 186 (4):2672-80. doi: 10.4049/jimmunol.1002653.

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PULMONARY NODULES – DIAGNOSIS CHALLENGE AND INTERDISCIPLINARY APPROACH

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ABSTRACT.

INTRODUCTION: PATIENTS WITH A HISTORY OF NEOPLASIA REPRESENT A SPECIAL CATEGORY. THEY REQUIRE LONG AND MULTIDISCIPLINARY FOLLOW-UP BECAUSE OF THE RISK OF SECONDARY DETERMINATIONS, ESPECIALLY IN THE LUNG, WHICH IS A FILTER IN THE PATH OF HEMATOGENOUS DISSEMINATION. METASTASES APPEAR AS SOLITARY OR MULTIPLE PULMONARY NODULES. THE EXISTENCE OF A SOLITARY PULMONARY NODULE MAY REPRESENT A SYNCHRONOUS OR METACHRONOUS PULMONARY LESION, NOT A SECONDARY DETERMINATION.

MATERIAL AND METHODS: THE AUTHORS PRESENT A RETROSPECTIVE DESCRIPTIVE STUDY REGARDING PATIENTS WITH A HISTORY OF NEOPLASIA, THAT WERE HOSPITALIZED IN THE THORACIC SURGERY CLINIC IN 2014 FOR PULMONARY NODULES. INCLUDED IN THIS STUDY WERE PATIENTS WHO UNDERWENT CURATIVE TREATMENT FOR UROGENITAL OR DIGESTIVE TRACT NEOPLASIA.

RESULTS: FORTY-FOUR PATIENTS WITH PREVIOUS UROGENITAL CANCERS OR TUMORS OF THE DIGESTIVE TRACT UNDERWENT SURGICAL TREATMENT. THE HISTOLOGIC RESULTS CONFIRMED METASTASES IN 30 CASES (68%), PRIMARY LUNG CANCER IN 11 (25%) AND BENIGN PULMONARY LESIONS IN 3 (7%).

DISCUSSIONS: THE APPEARANCE OF A PULMONARY NODULE IN PATIENTS WITH A HISTORY OF NEOPLASIA IS SUSPICIOUS FOR METASTATIC DISEASE, BUT A PRIMARY CANCER CAN'T BE EXCLUDED. DIAGNOSIS AND EFFECTIVE TREATMENT REQUIRES AN INTERDISCIPLINARY COLLABORATION BETWEEN RADIOLOGIST, ONCOLOGIST, PULMONOLOGIST, THORACIC SURGEON AND PATHOLOGIST.

CONCLUSIONS: SOLITARY PULMONARY NODULES, IN A PATIENT WITH A PREVIOUS HISTORY OF NEOPLASIA, SHOULD RECEIVE HISTOPATHOLOGICAL CONFIRMATION FOR THE APPROPRIATE THERAPEUTIC APPROACH.

KEYWORDS: PULMONARY NODULE, PULMONARY METASTASES, UROGENITAL CANCER

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INTRODUCTION

Patients with a history of neoplasia represent a special category. They require long and multidisciplinary follow-up because of the risk of secondary determinations, especially in the lung, which is a filter in the path of hematogenous dissemination.

Malignant disease's ability to metastasize remains one of the major obstacles when treating patients with cancer. The lungs are one of the most common organs in which cancer metastasizes, and approximately 30% of all cancer patients will develop lung metastases⁵. Metastases appear as a solitary or multiple pulmonary nodules. The symptomatology is almost nonexistent, so the diagnosis is made radioimagic via radiography and CT-scan. For this reason a meticulous tracking of the metastases is a requirement for both patient and doctor.

The existence of a solitary pulmonary nodule may represent a synchronous or metachronous pulmonary lesion, not a secondary determination. However, a solitary pulmonary nodule in a patient with neoplastic history should be resected, because if it is proven to be a second determination the surgical treatment can prolong survival⁶.

Typical radiologic findings of a pulmonary metastasis include multiple round variable-sized nodules. However, atypical radiologic features of metastases are often encountered, making distinction of metastases from other nonmalignant pulmonary diseases difficult. A detailed knowledge of the atypical radiologic features of a pulmonary metastasis with a good understanding of the histopathologic background is essential for correct diagnosis. Squamous cell carcinoma is regarded as the most common cell type of a cavitating metastasis, but metastatic nodules from adenocarcinomas and sarcomas also cavitate occasionally. Calcification can occur in a metastatic sarcoma or adenocarcinoma, which makes differentiation from a benign granuloma or hamartoma difficult. Peritumoral hemorrhage results in areas of nodular attenuation surrounded by a halo of ground-glass opacity⁷. Ultra-low-dose CT with iterative reconstruction has high sensitivity for lung nodule detection without significant difference in nodule size and volume measurement compared to low-dose CT⁸. Pulmonary nodules with a solid component, vascular convergence sign, and a larger diameter are highly suggestive of malignancy. The possibility of a neoplasm should also be considered in the case of nodules that show lobulation, spiculation, air cavity

⁵ Davidson RS, Nwogu CE, Brentjens MJ, Anderson TM. The surgical management of pulmonary metastasis: current concepts. *Surg Oncol* 2001;10:35-42.

⁶ Anraku M, Yokoi K, Nakagawa K, Fujisawa T, Nakajima J, Akiyama H, Nishimura Y, Kobayashi K; Metastatic Lung Tumor Study Group of Japan. Pulmonary metastases from uterine malignancies: results of surgical resection in 133 patients. *J Thorac Cardiovasc Surg.* 2004;127:1107-12; González Casaurán G, Simón Adiego C, Peñalver Pascual R, Moreno Mata N, Lozano Barriuso MÁ, González Aragonese F. Surgery of female genital tract tumor lung metastases. *Arch Bronconeumol.* 2011;47:134-7; Levenback C, Rubin SC, McCormack PM, Hoskins WJ, Atkinson EN, Lewis JL. Resection of pulmonary metastases from uterine sarcomas. *Gynecol Oncol.* 1992;45:202-5; Tellis CJ, Beechler CR. Pulmonary metastasis of carcinoma of the cervix: a retrospective study. *Cancer.* 1982;49:1705-9; Radulescu IM, Popescu R, Cirstoiu MM, Cordos I, Mischianu D, Cirstoiu CF. Surgical treatment for pulmonary metastases in urogenital cancers. *J Med Life.* 2014 Sep 15;7(3):358-62.

⁷ Seo JB, Im JG, Goo JM, Chung MJ, Kim MY. Atypical pulmonary metastases: spectrum of radiologic findings. *Radiographics.* 2001 Mar-Apr;21(2):403-17; Yasaka K, Katsura M, Hanaoka S, Sato J, Ohtomo K. High-resolution CT with new model-based iterative reconstruction with resolution preference algorithm in evaluations of lung nodules: Comparison with conventional model-based iterative reconstruction and adaptive statistical iterative reconstruction. *Eur J Radiol.* 2016 Mar;85(3):599-606. doi: 10.1016/j.ejrad.2016.01.001.

⁸ Sui X, Meinel FG, Song W, Xu X, Wang Z, Wang Y, Jin Z, Chen J, Vliegenthart R, Schoepf UJ. Detection and size measurements of pulmonary nodules in ultra-low-dose CT with iterative reconstruction compared to low dose CT. *Eur J Radiol.* 2016 Mar;85(3):564-70. doi: 10.1016/j.ejrad.2015.12.013.

densities, or pleural tags. To obtain a comprehensive and accurate analysis of the nodules, three-dimensional reconstruction is highly recommended⁹.

MATERIAL AND METHOD

The authors present a retrospective descriptive study regarding patients with a history of neoplasia hospitalized in the Thoracic Surgery Clinic (Bucharest National Institute of Pulmonology) between 1.01.2014 – 31.12.2014 for pulmonary nodules. Included were patients who underwent curative treatment for urogenital or digestive tract neoplasia, considering surgical resection for the cancer and chemotherapy/radiotherapy. The surgical resection for the pulmonary nodule was performed and the histopathological result was registered.

RESULTS

Forty-four patients with previous urogenital cancers or tumors of the digestive tract underwent surgical treatment for pulmonary nodules. The mean age was 58 yo with a minimum of 27 and a maximum of 92. The gender distribution of these patients is illustrated in figure 4.

All of them were suspected of pulmonary metastases this changing the initial disease to stage IV malignancy. 30 of them received chemotherapy without having a histopathological proof of the pulmonary second determination. Patients with history of two or more neoplasias were sent for surgery first.

The histologic results confirmed (fig. 3):

- metastases in 30 cases (68%);
- primary lung cancer in 11 (25%) – fig. 2;
- benign pulmonary lesions in 3 (7%) – fig. 1.

For five patients out of eleven there was the third malignant disease found and operated. Those with primary lung cancer turned out to be early stage, so the surgical intervention was curative – pulmonar lobectomy and mediastinal lymphadenectomy.

DISCUSSION

Management of solitary pulmonary nodule and micronodule is still debated. The first choice is to wait and do radiological follow-up, since the evaluation of temporal changes in a small mass may contribute to the differentiation of a malign from benign pathology¹⁰. In case of unchanged images not capable of orientating the diagnostician or no possible preoperative diagnosis by bronchoscopy and percutaneous needle biopsy, surgical treatment is necessary allowing the histological characterization of lesion and a good prognosis of disease¹¹. Considering the risk of a pulmonary second determination in patients with history of neoplasia, we believe that having a histologic diagnostic of the nodule is mandatory.

The appearance of a pulmonary nodule in patients with a history of neoplasia is suspicious for metastatic disease. Starting chemotherapy without having a histological diagnostic received after surgical resection of the lesion is cheaper for the medical hospital management so these patients often receive treatment for a metastatic disease at first.

⁹ Hu H, Wang Q, Tang H, Xiong L, Lin Q. Multi-slice computed tomography characteristics of solitary pulmonary ground-glass nodules: Differences between malignant and benign. *Thorac Cancer*. 2016 Jan;7(1):80-7. doi: 10.1111/1759-7714.12280.

¹⁰ Divisi D, Imbriglio G, De Vico A, Crisci R. Lung nodule management: a new classification proposal. *Minerva Chir*. 2011 Jun;66(3):223-34.

¹¹ Divisi, Imbriglio, De Vico, Crisci, *Lung nodule management: a new classification proposal...*

As can be seen in our study primary cancer can't be excluded, despite the radiological aspect of the pulmonary lesion (fig. 2). If the nodule proves to be benign (fig. 1) no further treatment should be considered.

Diagnosis and effective treatment should require an interdisciplinary collaboration between radiologist, oncologist, pulmonologist, thoracic surgeon and pathologist – a multidisciplinary committee to reach the optimal solution for the patient – this being the main purpose of our study.

CONCLUSIONS

In some cases, despite neoplastic history pulmonary nodules are not secondary determinations. They can be primary lung cancer or benign lesions so the patient needs a different treatment.

Pulmonary nodules, in a patient with a previous history of neoplasia, should receive histopathological confirmation for the appropriate therapeutic approach.

Although surgical pulmonary resection implies important risks, the patient should receive a complete diagnostic before further treatment.

FIGURES

Figure 1: 55 yo, F, treated for endometrial adenocarcinoma. HP result: pulmonary hamartocondroma – benign.



Figure 2: 64 yo, F, with right nephrectomy for urothelial carcinoma. HP result: squamous cell lung carcinoma – malign.

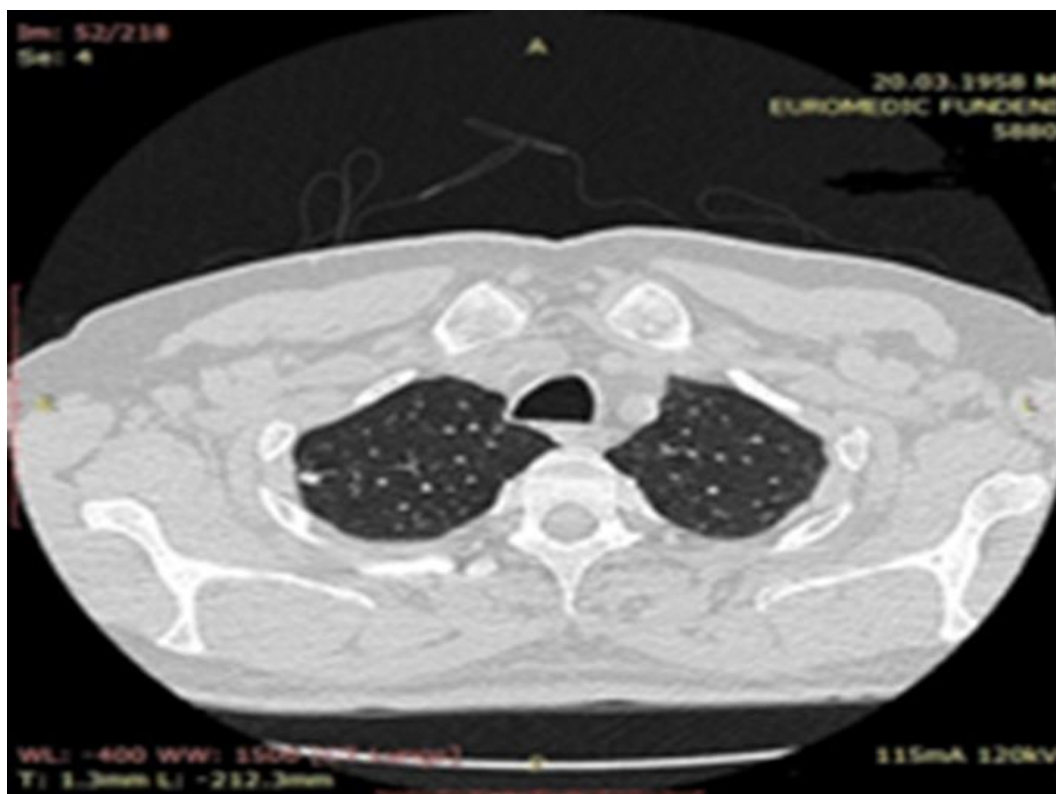


Figure 3. Histologic results of the resected pulmonary nodules in patients with history of neoplasia.

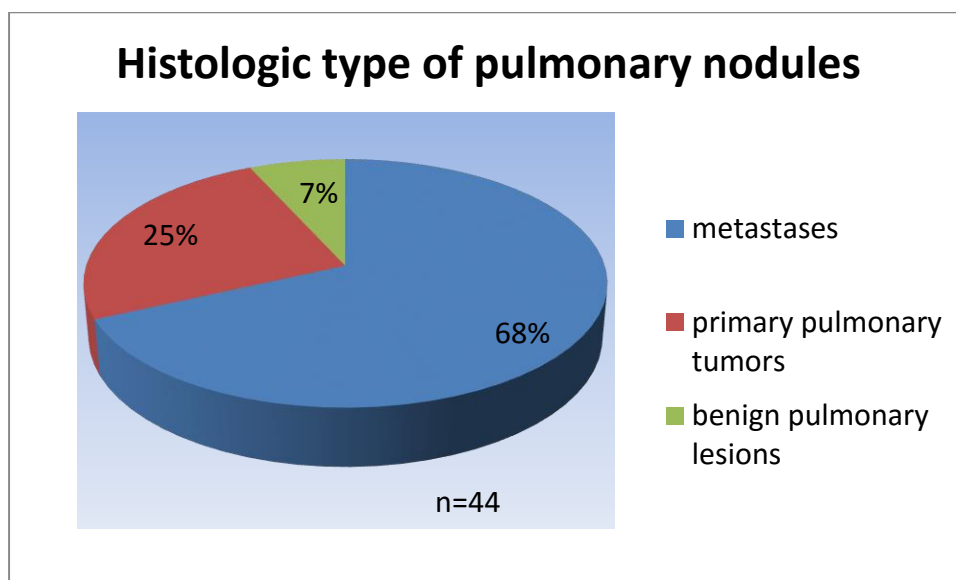
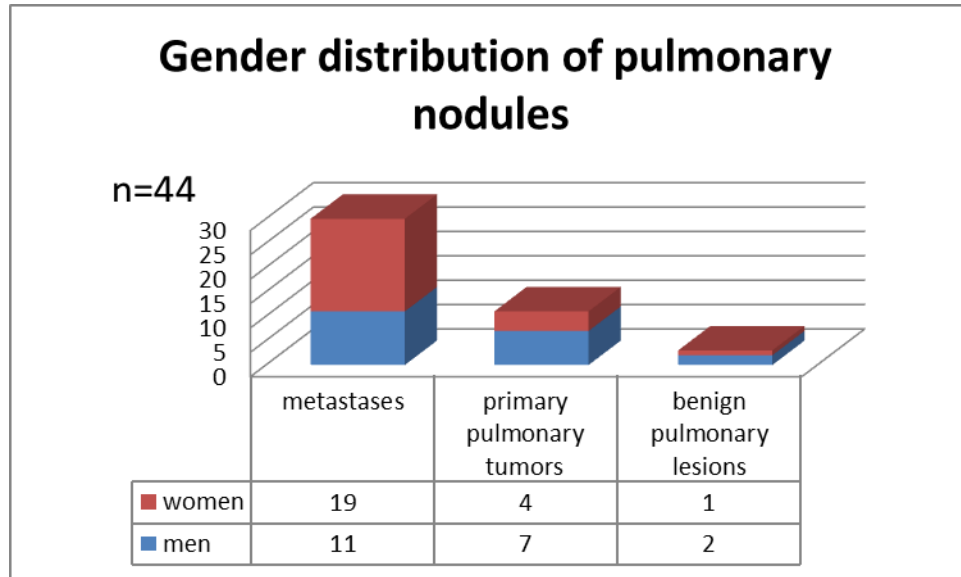


Figure 4. Gender distribution of patients with nodule resection.



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NON-MUSCLE INVASIVE BLADDER CANCER RECURRENCE RISK FACTORS

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ABSTRACT:

TO ESTABLISH THE RISK OF TUMORAL RECURRENCE FOR NON-MUSCLE INVASIVE BLADDER CANCER (NMIBC) DEPENDING ON HISTOLOGICAL OR ENVIRONMENTAL FACTORS. THE AIM OF THIS PAPER IS TO IMPROVE THE STANDARD CLINICAL CARE IN NMIBC PATIENTS FOLLOW-UP. WE INITIALLY EVALUATED 987 PATIENTS DIAGNOSED WITH BLADDER CANCER BETWEEN JANUARY 2005 AND DECEMBER 2014. MUSCLE-INVASIVE BLADDER CANCER (MIBC) WAS DIAGNOSED FOR 309 PATIENTS (31.3%) WHILE 678 (68.7%) HAD NMIBC. A TOTAL OF 540 PATIENTS WITH NMIBC WERE ANALYZED IN THE STUDY, WHILE THE OTHER 138 (20.4%) WERE EXCLUDED DUE TO INCOMPLETE CLINICAL DATA OR FOLLOW-UP. THE RETROSPECTIVE STUDY ANALYZED PATIENTS' CHARTS, DISCHARGE NOTES, ONCOLOGY REPORTS. PATIENTS WITH AT LEAST 3 YEARS COMPLETE FOLLOW-UP DATA WERE ENROLLED. THE AVERAGE AGE OF DIAGNOSED PATIENTS WITH NMIBC WAS 65.3 YEARS. THE MAJORITY OF PATIENTS WERE DIAGNOSED WITH SINGLE TUMORS (68.5%). NMIBC WAS PREDOMINANT IN MALES, WITH A SEX RATIO 3.25:1 FOR MALES. BLADDER TRIGON IS THE MAIN LOCATION FOR BLADDER TUMORS. SMOKING WAS THE MAIN RISK FACTOR ACCORDING TO OUR RESULTS. SMOKERS HAD A 4 TIMES HIGHER RISK FOR NMIBC DEVELOPMENT. PATIENTS WITH MULTIPLE BLADDER TUMORS HAD 2.28 HIGHER RISK OF RECURRENCE. OVERALL RECURRENCE FOR NMIBC WAS 49.1%. SMOKING IS THE MOST IMPORTANT RISK FACTOR AND THE RECURRENCE RATE IS HIGHER IN SMOKING-PATIENTS. ALSO, PATIENTS WITH MULTIPLE TUMOURS HAVE BEEN DIAGNOSED WITH HIGHER RISK FOR TUMOR RECURRENCE ($P < 0.05$). LARGE TUMORS AND PATIENTS WITH ASSOCIATED UROLOGICAL CONDITIONS HAVE HIGHER RISK OF TUMORAL RECURRENCE ($OR = 2.2$).

KEY WORDS: RECURRENCE, BLADDER CANCER, PROGRESSION, RISK FACTORS

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INTRODUCTION

Bladder cancer is the most frequent tumor of the urinary tract and second among urogenital tract tumors. This high frequency and the relapsing nature of bladder cancer, means that this poses an enormous burden on health care systems. Approximately 75% of newly diagnosed bladder cancers are non-invasive and have a high rate of recurrence and progression, despite adequate therapy. The remaining 25% of bladder cancer diagnosed with muscle-invasion require either radical surgery or radiotherapy. Often this therapy has poor outcome, despite association with systemic adjuvant therapy⁸.

Gender differences exist in the timeliness and completeness of hematuria evaluation, women experiencing a significantly greater delay in urologic referral and undergoing guideline-concordant imaging less frequently. Correspondingly, women have more advanced tumors at the time of bladder cancer diagnosis⁹.

The incidence of bladder cancer has decreased in some reports possibly reflecting the decreased impact of causative agents, mainly smoking and occupational exposures¹². Tobacco smoking is the most important risk factor for bladder cancer, accounting for approximately 50% of cases¹⁰.

Smoking is associated with an advanced histological grade and with higher T grade, suggesting that smoking favors tumor progression¹¹.

The most important environmental risk factor for development of bladder cancer is occupational exposure to aromatic amines which can be found in chemical products, dyes and rubber industries as well in hair dyes, paints, fungicides, cigarette smoke, plastics, metals and motor vehicle exhaust gases¹².

According to the TNM classification system, tumors confined to the mucosa are classified as Ta while those confined to the mucosa with flat appearance are classified as CIS. Tumors that have invaded the lamina propria are classified as T1. They are all grouped within the NMIBC group¹³.

⁸ Boring CC, Squires TS, Tong T. Cancer statistics 1995. *Cancer J Clin*, 1995;45:2; EAU-European association of urology guidelines 2013; Sievert KD, Amend B, Nagele U, et al. Economic aspects of bladder cancer: what are the benefits and costs? *World J Urol* 2009;27:295–300; Tomescu P, Dragoescu P, Panus A, Mitroi G. Photodynamic Diagnosis of Non-Muscle Invasive Bladder Cancer Using Hexaminolevulinic Acid; Gluck G., Drăgoescu O., Sinescu I. Supraviețuirea pacienților cu cancer al vezicii urinare (No comparativ cu N+) tratați prin cistectomie radicală. *Rev Rom Urol* 5(1), 2006.

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¹² Letašiová S, Medve'ová A, Šovčíková A, Dušínská M, Volkovová K, Mosoiu C, Bartonová A. Environ Health. Bladder cancer, a review of the environmental risk factors. 2012 Jun 28;11 Suppl 1:S11; Drăgoescu O., Tomescu P., Stoica L., Pănuș A., Maria C., Bădulescu F. Tratamentul adjuvant al tumorilor vezicale non-invazive cu risc intermediar operate. *Craiova Medicală* 10(2):82-85, 2008.

¹³ EAU-European association of urology guidelines 2013; Tomescu P, Pănuș A. *Urologie*. Ed. Medicală Universitară Craiova, 2006

NMIBC evolution is marked by tumor progression and tumor recurrence. These are the most debated aspects to establish standard clinical care.

MAIN TEXT

OBJECTIVE

Although primary bladder cancer risk factors are well known, there is little evidence regarding tumor recurrence risk factors. This study aims at establishing the incidence of tumoral recurrence depending on each histological or environmental studied factors and to increase the standard clinical care of surveillance for NMIBC.

PATIENTS AND METHODS

We analyzed 987 patients diagnosed with bladder cancer between January 2002 and December 2011.

We found in the database 309 (31.3%) patients diagnosed with MIBC and 678 (68.7%) diagnosed with NMBIC and 540 (79.6%) patients with primary NMIBC, diagnosed between January 2005 and December 2014, at the Craiova Urology Department and with at least 3 years of documented follow-up were included in the study while 138 patients (20.4%) with poor clinical and paraclinical data, tumoral progression, non-oncological deaths or incomplete follow-up have been excluded.

For all patients we used the same diagnostic protocol, surgical treatment (TUR-V) and oncological treatment. The cystoscopic evaluation was performed according to EAU Guidelines depending on risk group stratification every: 3 months in the first 2 years, every 6 months until 5 years and then yearly for high-grade risk tumors. Mean postoperative follow-up was 47.1 ± 12.3 months (range 36-72 months).

Evaluated bladder cancer recurrence risk factors were: age, sex, smoking habit, toxic environment, significant urological history (with significant post-voiding residual urine volume) as well as tumor factors (number, size, location, depth of invasion - T and differentiation – G). The analysis endpoint was the presence of tumor recurrence after 3 years of cystoscopic follow-up.

Statistical data analysis was performed using the MS Excel and MedCalc 10.2 software.

RESULTS

Mean patients age was 65.3 ± 10.1 years, with a sex ratio 3.25:1 for males. We also have found that in the 8th decade the sex ratio is 1.7:1 for males, probably because life expectancy is higher for females.

Only 142 (26%) patients were non-smokers while 398 (74%) were active smokers. Risk factors such as petroleum products or painting workers were found for 30 patients only (5%).

Most of the patients were diagnosed with single tumors (68.5%) and only 31.5% had more than 2 tumors at the time of initial diagnosis. One patient was diagnosed with 22 tumors.

Mean tumor size was 21.3 ± 13.6 mm, with limits between 3 – 60 mm. The majority of patients were diagnosed with small tumors, <3 cm (77.2%). According to European Guidelines we stratified bladder tumors in two categories depending on the tumor size: <3cm and >3cm. We found that the majority of patients was diagnosed with tumor size <3cm (77.2%).

Predominant location of bladder tumors was at the level of bladder trigone (167 cases - 30.9%), right lateral wall (21.5%) and left lateral wall (19.4%). For multiple tumors, the location of the largest tumors was recorded.

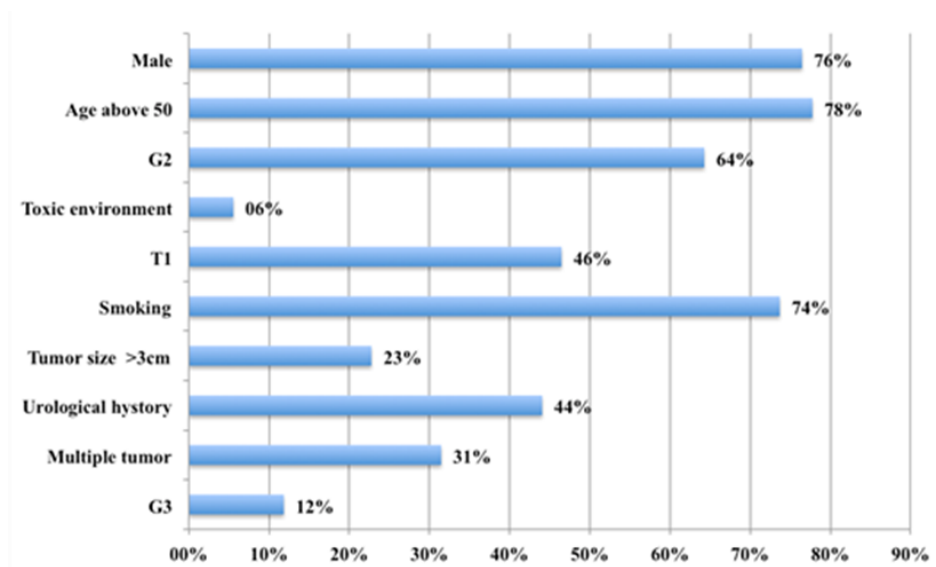


Fig. 1. NMIBC recurrence risk factors incidence

Analizing the pathological reports, we found that 528 (97.8%) were diagnosed with urothelial carcinoma and 12 (2.2%) were diagnosed with other rare forms of bladder carcinoma. According to TNM classification, Ta was the most frequent stage (53.5%), followed by T1. We could not appreciate the incidence of CIS frequency because of incomplete data. Moderate differentiated form (G2) was the most frequent form (56.9%), followed by G1 (35.2%) and G3 (12.2%).

At recurrence analysis we identified 265 patients with at least one tumour recurrence during the first 3 years of follow-up. Overall recurrence rate was 49.1%. Males, older patients, smokers and those with urological history have a higher recurrence rate. Regarding tumor characteristics, patients with large, multiple tumors, T1, G2, G3 have also a higher recurrence rate. Highest recurrence rate (63-64%) was found for patients with multiple or poorly differentiated tumors (G3).

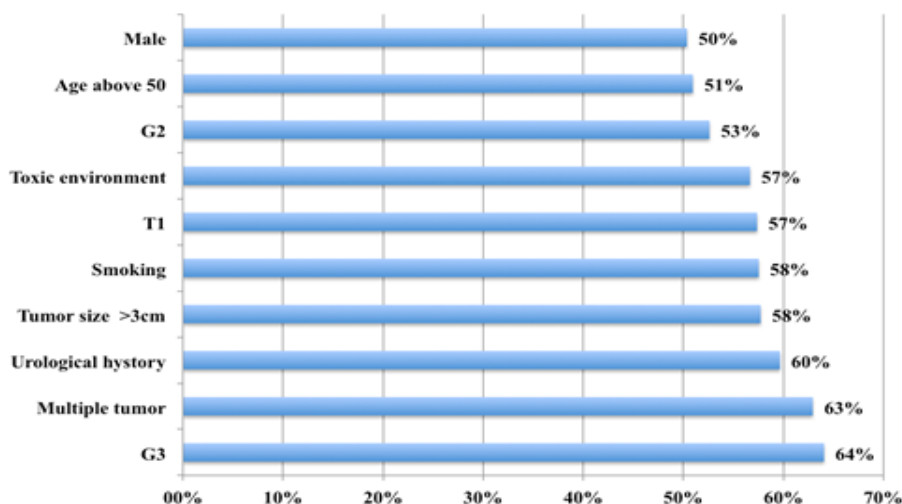


Fig. 2. NMIBC recurrence rate depending on the risk factors

Smoking was identified as the main risk factor. It was found in 398 (73.7%) patients. From all smoking patients, 229 were diagnosed with recurrence (58%) while only 36 non-smoking patients had recurrence (25%).

Recurrence risk analysis was performed by calculating the odds ratio (OR) for tumor recurrence for each of the risk factors. As expected, highly significant tumor recurrence risk ($p < 0.0001$) was identified for smokers with a 4 fold higher probability of developing recurrences than non-smokers (OR=3.99, 95%CI=2.60-6.12) followed by patients with multiple tumors (OR=2.28, 95%CI=1.57-3.31) and those with significant urological history (OR=2.15, 95%CI=1.32-3.04). Significant risk ($p < 0.05$) was also found for patients with G3 poorly differentiated carcinomas (OR=2.10, 95%CI=1.86-3.23), T1 invasive tumors (OR= 1.87, 95%CI=1.33-2.63) and tumors larger than 3 cm (OR= 1.57, 95%CI=1.05-2.37), while non-significant risk was shown for the other evaluated factors (age, sex, environmental factors). Due to the many possible tumor locations and the existence of multiple tumors the risk analysis for tumor location was not possible. Noticeably the highest recurrence rate was found for tumors located at the bladder trigone (58.1%).

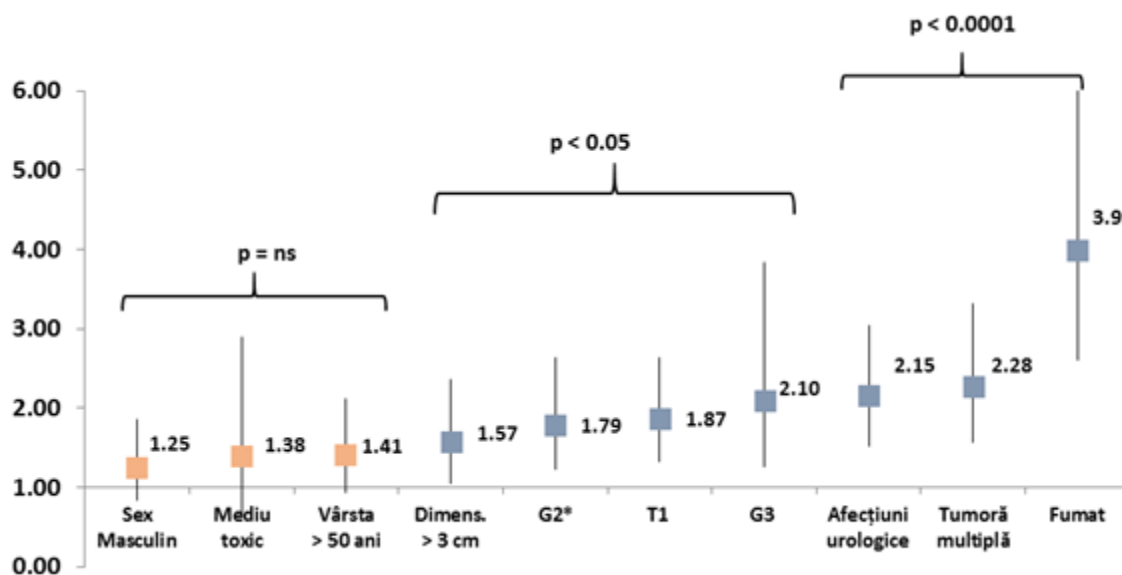


Fig. 3. Odds Ratio for tumor recurrence (OR \pm 95%CI.; red - insignificant risk, blue significant risk – $p < 0.05$).

DISCUSSIONS

The mean age of patients with NMIBC was 65.3 years. Most patients had single tumors mainly located at the bladder trigone. Overall recurrence rate after 3 years of follow-up is around 50%. Smoking was proven to be the most important recurrence risk factor. Also, patients with large, multiple or undifferentiated tumours have a higher risk for tumor recurrence as well as those with associated urological conditions. No significant recurrence risk was identified for patients exposed to toxic environment.

Smoking remains the main risk factor for recurrence (4X risk increase) while histological factors such as number of tumors and histological differentiation have a lower impact for bladder cancer recurrence..

Smokers have a higher rate of progression. Patients exposed to toxic environment have a high rate of recurrence. Considering our data, patients with T1, G3 tumors have highest rate of recurrence.

The most debated aspect considering bladder cancer is tumor recurrence, that was identified for a long time, but with all efforts that include adjuvant treatment, periodic endoscopic follow up, stil remains a pathology that is affecting healthcare system and patients quality of life.

Patient category	n =	(%)	Recidive	%	OR±95%CI	p =
Patients no.	540	100%	265	49.1%	-	-
> 50 years	420	77.8%	214	51.0%	1.41 (0.93-2.12)	0.103
< 50 years	120	22.2%	51	42.5%		
Males	413	76.5%	208	50.4%	1.25 (0.84-1.86)	0.2803
Females	127	23.5%	57	44.9%		
Smokers	398	73.7%	229	57.5%	3.99 (2.60-6.12)	<0.0001
Non-smokers	142	26.3%	36	25.4%		
Toxic environment	30	5.6%	17	56.7%	1.38 (0.66-2.90)	0.3937
No toxic environment	510	94.4%	248	48.6%		
Urological conditions	238	44.1%	142	59.7%	2.15(1.32-3.04)	<0.0001
No pathological conditions	302	55.9%	123	40.7%		
Tumor						
Single tumor	370	68.5%	158	62.9%	2.28 (1.57-3.31)	<0.0001
Multiple tumors	170	31.5%	107	42.7%		
> 3 cm	123	22.8%	71	57.7%	1.57 (1.05-2.37)	0.02960
< 3 cm	417	77.2%	194	46.5%		
Trigon	167	30.9%	97	58.1%	-	-
Posterior wall	88	16.3%	47	53.4%		
Anterior wall	64	11.9%	31	48.4%		
Right lateral wall	113	20.9%	51	44.0%		
Left lateral wall	108	20.0%	39	37.1%		
Ta	289	53.5%	121	41.9%		
T1	251	46.5%	144	57.4%	1.87 (1.33-2.63)	0.0003
G1	167	35.2%	63	37.7%		
G2	307	56.9%	161	52.4%	1.79 (1.22-2.63)	0.0030
G3	66	12.2%	41	62.1%		
G1,G2					2.10 (1.86-3.23)	0.0055

Table 1. Risk factors incidence, specific recurrence rates, and OR (significant risk if $p < 0.05$)

CONCLUSIONS

Despite standardized treatment and follow-up protocols, NMIBC still has a high recurrence rate as proven by our study. Highest risk is for smokers, multiple and G3 tumors, while lowest risk is for non-smokers, Ta, G1 tumors.

A better follow-up for associated urological conditions and quitting smoking could improve the risk of recurrence for patients diagnosed with bladder cancer. An improved adjuvant treatment and follow-up schedule according to tumoral risk grade will be necessary to further reduce the recurrence risk and facilitate timely diagnosis

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THE INFLUENCE OF STEATOSIS AND CONJUGATE FACTORS OF RESPONSE TO ANTIVIRAL TREATMENT IN CRONIC HEPATITIS C

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ABSTRACT:

HEPATITIS C VIRUS (HCV) IS A MAJOR CAUSE OF CHRONIC LIVER DISEASE WORLDWIDE. AN INCREASED PREVALENCE OF STEATOSIS IN PATIENTS WITH HCV IS WELL ESTABLISHED. MOST STUDIES HAVE REPORTED APPROXIMATELY 50% PREVALENCE OF STEATOSIS AMONG PATIENTS UNDERGOING A LIVER BIOPSY BECAUSE OF HCV. IN COMPARISON, AMONG PATIENTS WITH AUTOIMMUNE HEPATITIS AND HEPATITIS B (HBV), STEATOSIS IS NOT COMMONLY OBSERVED. HEPATITIS C VIRUS (HCV) INFECTION IS AN IMPORTANT RISK FACTOR FOR INSULIN RESISTANCE (IR). THE LATTER IS THE PATHOGENIC FOUNDATION UNDERLYING METABOLIC SYNDROME, STEATOSIS AND CIRRHOSIS, AND POSSIBLY HEPATOCELLULAR CARCINOMA (HCC). WHEREAS THE OVERALL PREVALENCE OF IR IS 10%-25% OF THE POPULATION, THE PREVALENCE IR IN HCV INFECTION REACHES FIGURES RANGING BETWEEN 30% TO 70%. OBESITY AND/OR STEATOSIS IN PATIENTS WITH CHRONIC HCV HAS CONSISTENTLY BEEN SHOWN TO BE ASSOCIATED WITH AN IMPAIRED RESPONSE TO ANTIVIRAL TREATMENT WITH INTERFERON THERAPY. IT IS NOT CLEAR WHETHER THIS ASSOCIATION BETWEEN OVERWEIGHT OR OBESITY AND POOR RESPONSE TO ANTIVIRAL THERAPY IS DUE TO STEATOSIS AND MIGHT NOT ONLY BE LINKED TO OBESITY. ACCUMULATING EVIDENCE SUGGESTS THAT STEATOSIS PLAYS A ROLE IN HCV-RELATED FIBROSIS, AND SUPPORT FOR THIS ALSO COMES FROM STUDIES SHOWING THAT WEIGHT REDUCTION IN THESE PATIENTS LEADS NOT ONLY TO A DECREASE IN STEATOSIS BUT ALSO IMPROVEMENT IN FIBROSIS SCORE.

KEY WORDS: HEPATITIS C VIRUS, STEATOSIS, NON-ALCOHOLIC FATTY LIVER, INSULIN RESISTANCE, INTERFERON THERAPY

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INTRODUCTION

Hepatitis C virus (HCV) is a major cause of chronic liver disease worldwide. According to the most recent WHO estimate the prevalence of HCV is approximately 2.2%, affecting approximately 123 million people in the world. Factors that may influence the rate of disease progression and response to therapy have been extensively investigated. These variables include age at infection, gender, alcohol consumption, duration of infection, race, HCV genotype, viral burden and the stage of fibrosis⁶.

Other possible factor is steatosis - a common yet non-specific histologic feature of chronic HCV infection, with prevalence rates of 30 – 70%. Due to the increased recognition of the potential for some forms of fatty liver to result in progressive liver disease, the role of steatosis in HCV infection has become an area of interest⁷.

Hepatitis C virus (HCV) infection causes chronic hepatitis and leads to liver fibrosis and hepatocellular carcinoma. Pegylated-interferon and ribavirin is the current standard therapy for chronic hepatitis C. However, the therapy is only effective in 50% of the patients. Over the last decade it has become apparent that liver steatosis in the setting of HCV infection is a distinct condition with specific clinical and prognostic features. epidemiological studies have shown that hepatic steatosis among people who do not drink alcohol, or drink only small amounts of alcohol—nonalcoholic fatty liver disease (NAFLD). Non-alcoholic fatty liver disease (NAFLD) is a pathological clinical syndrome that ranges from isolated liver steatosis to non-alcoholic steatohepatitis (NASH), which can progress to advanced fibrosis and cirrhosis. Estimates based on imaging studies and autopsies suggest that approximately 20%-30% of American adults and those from Western countries have an accumulation of liver fat, and approximately 10% of these individuals have NASH. This is frequently associated with adult age, female gender, obesity, diabetes mellitus (DM) type 2, hypertriglyceridemia, dyslipidemia and other conditions characterized by resistance to insulin and hyperinsulinemia⁸.

MAIN TEXT

RELATIONSHIP BETWEEN STEATOSIS AND HCV INFECTION

An increased prevalence of steatosis in patients with HCV is well established. Most studies have reported approximately 50% prevalence of steatosis among patients undergoing a liver biopsy because of HCV. In comparison, among patients with autoimmune hepatitis and hepatitis B (HBV), steatosis is not commonly observed⁹.

⁶ Alberti A, Vario A, Ferrari A, Pistis R. Review article: chronic hepatitis C--natural history and cofactors. *Aliment Pharmacol Ther.* 2005;22(Suppl 2):74–78. [PubMed]; Angulo P. Nonalcoholic fatty liver disease. *N Engl J Med* 2002;346: 1221e1231; Fan JG, Zhu J, Li XJ, Chen L, Li L, Dai F, et al. Prevalence of and risk factors for fatty liver in a general population of Shanghai, China. *J Hepatol* 2005;43:508e514

⁷ Ramesh S, Sanyal AJ. Hepatitis C and nonalcoholic fatty liver disease. *Semin Liver Dis* 2004;24:399e413; Lonardo A, Adinolfi LE, Loria P, Carulli N, Ruggiero G, Day CP. Steatosis and hepatitis C virus: mechanisms and significance for hepatic and extrahepatic disease. *Gastroenterology* 2004;126:586e597; Bedogni G, Miglioli L, Masutti F, Tiribelli C, Marchesini G, Bellentani S. Prevalence of and risk factors for nonalcoholic fatty liver disease: The Dionysos Nutrition and Liver Study. *Hepatology* 2005; 42:44e52.

⁸ Giannini E, Ceppa P, Testa R. Steatosis in chronic hepatitis C: can weight reduction improve therapeutic efficacy? *J Hepatol* 2001;35:432e433; Hickman IJ, Clouston AD, Macdonald GA, Purdie DM, Prins JB, Ash S, et al. Effect of weight reduction on liver histology and biochemistry in patients with chronic hepatitis C. *Gut* 2002;51:89e94.

⁹ Charlton MR, Pockros PJ, Harrison SA. Impact of obesity on treatment of chronic hepatitis C. *Hepatology* 2006;43:1177e1186; Asselah T, Rubbia-Brandt L, Marcellin P, Negro F. Steatosis in chronic hepatitis C: why does it really matter? *Gut* 2006;55:123e130.

Although concomitant steatosis and HCV infection may in some cases be due to alcohol, it has been demonstrated that NAFLD is a more common explanation in most patients. The most common denominator of steatosis in HCV-infected patients in general is the concomitant presence of obesity correlating positively with body mass index (BMI) in most studies. The prevalence of obesity in HCV-infected patients has been reported to be

17-38% in Europe, North America, and Asian countries. Several large studies have consistently found the association between obesity and other features of the metabolic syndrome and presence of steatosis in patients with HCV infected with the genotypes 1 and 2, but such an association is rather weak in HCV genotype 3-infected patients.

Thus, it has been convincingly shown that genotype 3 per se can specifically induce liver steatosis without metabolic risk factors. Steatosis in patients with genotype 3 correlates with viral load and intrahepatic replication indicating a direct steatogenic effect of this specific genotype. Furthermore, steatosis has been shown to resolve with a successful eradication of HCV genotype 3 and returns with relapse, whereas this is not seen in those infected with genotype 1¹⁰.

By pooling data from different studies, steatosis has been found to occur in approximately 74% in genotype 3 vs. approximately 50% in patients with genotypes other than 3. High titers of intrahepatic strand HCV RNA of patients with genotype 3 have been shown to correlate significantly with the grade of steatosis in these patients, indicating that steatosis induced by genotype 3 might be due to cytopathic effects of this particular genotype. The presence and intensity of liver steatosis is considered a marker of liver disease progression in patients with CHC, and it also seems to have an impact on sustained virological response (SVR) in these patients when submitted to antiviral therapy. It is possible that hyperinsulinemia could block the inhibition of HCV replication by interferon, since insulin and interferon share signal transduction factors, such as p38 MAP kinase; PI3 kinase and IRF-1 also might be associated. The presence and intensity of liver steatosis is considered a marker of liver disease progression in patients with CHC, and it also seems to have an impact on sustained virological response (SVR) in these patients when submitted to antiviral therapy. It is possible that hyperinsulinemia could block the inhibition of HCV replication by interferon, since insulin and interferon share signal transduction factors, such as p38 MAP kinase; PI3 kinase and IRF-1 also might be associated¹¹.

INSULIN RESISTANCE AND HCV

Hepatitis C virus (HCV) infection is an important risk factor for insulin resistance (IR). The latter is the pathogenic foundation underlying metabolic syndrome, steatosis and cirrhosis, and possibly hepatocellular carcinoma (HCC). IR is a complex pathophysiological condition where higher-than-normal concentrations of insulin are needed to maintain a normal glycemia and adequate glucose utilization in insulin target tissues. IR is of global importance since is closely linked to the epidemic condition of obesity it precedes and predicts the development of type 2

¹⁰ Leandro G, Mangia A, Hui J, Fabris P, Rubbia-Brandt L, Colloredo G, et al. HCV Meta-Analysis (on) Individual Patients' Data Study Group. Relationship between steatosis, inflammation, and fibrosis in chronic hepatitis C: a meta-analysis of individual patient data. *Gastroenterology* 2006;130:1636e1642.

¹¹ Marchesini G, Brizi M, Bianchi G, Tomassetti S, Bugianesi E, Lenzi M, McCullough AJ. Nonalcoholic fatty liver disease: a feature of the metabolic syndrome. *Diabetes* 2001;50:1844e1850; Friis-Liby I, Aldenborg F, Jerlstad P, Rundstrom K, Bjornsson E. High prevalence of metabolic complications in patients with non-alcoholic fatty liver disease. *Scand J Gastroenterol* 2004;39:864e869; Patton HM, Patel K, Behling C, Bylund D, Blatt LM, Vallée M, Heaton S, Conrad A, Pockros PJ, McHutchison JG. The impact of steatosis on disease progression and early and sustained treatment response in chronic hepatitis C patients. *J Hepatol.* 2004;40:484–490. [PubMed]

diabetes mellitus (T2DM) and increases the risk of life-threatening complications such as cardiovascular diseases, renal failure, and infections. IR is extremely common in patients with chronic HCV infection and has been associated with increased disease severity, extrahepatic manifestations and decreased response to antiviral therapy¹².

Causes of insulin resistance it represent by genetic and acquired factors. Obesity is associated with IR, hepatic steatosis and over expression of tumor necrosis factor- α (TNF- α). All of these factors increase the risk of fibrosis and decreased antiviral efficacy. Also, obesity decreases interferon bioavailability and impairs immune stimulating properties of interferon. Hepatic steatosis, nonalcoholic steatohepatitis and fibrosis are associated with release of reactive oxygen species (ROS), which contribute to decreased HCV response to interferon (IFN). Moreover, obesity is associated with decreased number and downregulation of insulin receptors and impairment of postreceptor signaling. Overflow of free fatty acids (FFAs) from adipose tissue interferes with intrahepatic insulin signaling pathway via increased levels of pro-inflammatory cytokines such as TNF- α , and proteasomal degradation of the insulin receptor substrates (IRS)¹³.

Hepatitis C virus induces insulin resistance

Whereas the overall prevalence of IR is 10%-25% of the population¹⁴, the prevalence IR in HCV infection reaches figures ranging between 30% to 70%¹⁵. Moreover, IR with HCV infection is increased at early stages of liver disease without liver fibrosis, and is on average significantly higher than that found in patients with chronic hepatitis B, matched for age and body mass index¹⁶.

The causal relationship of HCV infection and IR development has been demonstrated by the increased prevalence of IR (insulin resistance) in chronic HCV infection. HCV virus, through both direct and indirect pathways, affects the insulin signaling pathways, promoting IR at a cellular level. Insulin effects are elicited after binding of insulin to its receptor that is linked to a complex signaling pathway that involves sequential activation of IRS, PI3K, Akt, a protein kinase which is a downstream of PI3K activation, and protein kinase C. This cascade of events eventually results in stimulation of glucose uptake after translocation of the GLUT4 to the plasma membrane. IR results from defects at any level of the insulin receptor-related signaling pathway

Following inflammatory response in the liver to HCV infection, a profound impairment of insulin signaling occurs at the level of IRS tyrosine phosphorylation and PI3K activation. HCV core protein induces expression of TNF- α , which activates SOCS-3, leading to subsequent

¹² Knobler H, Schattner A. TNF- α , chronic hepatitis C and diabetes: a novel triad. QJM.2005;98:1–6. [PubMed]; Shintani Y, Fujie H, Miyoshi H, Tsutsumi T, Tsukamoto K, Kimura S, Moriya K, Koike K. Hepatitis C virus infection and diabetes: direct involvement of the virus in the development of insulin resistance. Gastroenterology. 2004;126:840–848. [PubMed]

¹³ Kawaguchi T, Yoshida T, Harada M, Hisamoto T, Nagao Y, Ide T, Taniguchi E, Kumemura H, Hanada S, Maeyama M, et al. Hepatitis C virus down-regulates insulin receptor substrates 1 and 2 through up-regulation of suppressor of cytokine signaling 3. Am J Pathol. 2004;165:1499–1508. [PMC free article] [PubMed]; Ozcan U, Cao Q, Yilmaz E, Lee AH, Iwakoshi NN, Ozdelen E, Tuncman G, Görgün C, Glimcher LH, Hotamisligil GS. Endoplasmic reticulum stress links obesity, insulin action, and type 2 diabetes. Science. 2004;306:457–461. [PubMed]

¹⁴ Marcellin P, Asselah T, Boyer N. Fibrosis and disease progression in hepatitis C. Hepatology 2002;36:S47–56. [PubMed]

¹⁵ Poynard T, Bedossa P, Opolon P, et al. Natural history of liver fibrosis progression in patients with chronic hepatitis C. Lancet 1997;349:825–32. [PubMed]; Marceau P, Biron S, Hould F-S, Marceau S, Simard S, Thung SN, et al. Liver pathology and the metabolic syndrome X in severe obesity. J Clin Endocrinol Metab 1999;84:1513e1517.

¹⁶ Ozcan U, Cao Q, Yilmaz E, Lee AH, Iwakoshi NN, Ozdelen E, Tuncman G, Görgün C, Glimcher LH, Hotamisligil GS. Endoplasmic reticulum stress links obesity, insulin action, and type 2 diabetes. Science. 2004;306:457–461. [PubMed]; Rabe K, Lehrke M, Parhofer KG, Broedl UC. Adipokines and insulin resistance. Mol Med. 2008;14:741–751. [PMC free article] [PubMed]

proteasomal degradation of IRS1 and IRS2, resulting in the development of IR. Meanwhile, SOCS-3 inactivates PI3K, which in turn inhibits translocation of GLUT-4 to cell membrane, thus blocking intracellular glucose uptake¹⁷.

It has been also suggested that increased levels of pro-inflammatory cytokines such as interleukin 1, TNF- α , IL-6 and leptin, and reduced levels of adiponectin may directly contribute to the occurrence of HCV-related IR.

STEATOSIS AND PROGRESSION OF FIBROSIS

Multiple factors may influence the progression of fibrosis in patients with HCV such as age, sex, concomitant alcohol use, and/or co-infections with hepatitis B or HIV. Steatosis has been shown to influence the progression of fibrosis among patients with HCV. Some studies have only identified genotype 3 to influence the progression of fibrosis, whereas others have found that steatosis may influence fibrosis associated with genotype 1. Several studies have found steatosis to be independently associated with progression of fibrosis¹⁸.

It is uncertain if steatosis per se is the cause of fibrosis progression in patients with HCV. Steatosis might be the consequence of more severe liver injury and a marker of necroinflammatory activity, which has been closely linked to fibrosis progression in chronic HCV.

That steatosis plays an indirect role probably mediated by hepatic inflammation is further supported by the recent meta-analysis demonstrating that the association between steatosis and fibrosis was dependent on a simultaneous association between steatosis and hepatic inflammation¹⁹.

IMPACT OF STEATOSIS ON THE EFFECT OF TREATMENT

Obesity and/or steatosis in patients with chronic HCV has consistently been shown to be associated with an impaired response to antiviral treatment with interferon therapy. It is not clear whether this association between overweight or obesity and poor response to antiviral therapy is due to steatosis and might not only be linked to obesity. Patton et al. observed that patients with genotype 1 who achieved SVR had a lesser degree of steatosis compared to nonresponders. Other authors have previously shown steatosis to be more prevalent in poor responders (65%) than in those patients who achieved SVR (47%). However, this poor response associated with steatosis seems to be limited to the “metabolic” fat, in contrast to “viral” fat, because viral steatosis associated with genotype 3 was not associated with an impaired response to antiviral therapy.

In fact, it has been demonstrated that steatosis may result in altered liver function, which might contribute to the normal response to antiviral therapy although that has not been tested in well-designed studies. Weight reduction has been suggested as a potential tool in order to improve the therapeutic efficacy of antiviral therapy but so far has not been tested²⁰.

¹⁷ Bressler BL, Guindi M, Tomlinson G, Heathcote J. High body mass index is an independent risk factor for nonresponse to antiviral treatment in chronic hepatitis C. *Hepatology* 2003;38:639e644; Marcellin P, Asselah T, Boyer N. Fibrosis and disease progression in hepatitis C. *Hepatology* 2002;36:S47–56. [PubMed]

¹⁸ Marcellin P, Asselah T, Boyer N. Fibrosis and disease progression in hepatitis C. *Hepatology* 2002;36:S47–56. [PubMed]

¹⁹ Poynard T, Bedossa P, Opolon P, et al. Natural history of liver fibrosis progression in patients with chronic hepatitis C. *Lancet* 1997;349:825–32. [PubMed]

²⁰ Marceau P, Biron S, Hould F-S, Marceau S, Simard S, Thung SN, et al. Liver pathology and the metabolic syndrome X in severe obesity. *J Clin Endocrinol Metab* 1999;84:1513e1517; McCullough AJ. Obesity and its nurturing effect on hepatitis C. *Hepatology* 2003;38:557e559.

HCV AND LIPID METABOLISM

Lipid metabolism is involved in the life cycle of many viruses. The resulting metabolites work as physiologically active molecules such as eicosanoids and so on, and some of them are incorporated into the lipid raft membrane. A lipid raft is distinct from other lipid membranes. It is enriched in cholesterol and sphingolipids and is detergent-resistant. Lipid rafts play an important role in virus entry, replication, and assembly. HCV also forms a replication complex on the lipid raft membrane structure. Therefore, the depletion of the cholesterol and sphingolipid from the lipid raft leads to the inhibition of HCV RNA replication²¹.

DIFFERENT ANTI-HCV EFFECTS OF STATIN

Statins are one of the most worldwide used reagents for the treatment of hypercholesterolemia and they are beneficial in the prevention of coronary heart disease. In the cholesterol biosynthesis pathway, the production of mevalonate by HMG-CoA reductase, resulting in decreased production of isoprenoids as well as cholesterol. The activities of some cellular proteins are regulated by the attachment of isoprenoids (prenylation). The combination therapy of PEG-IFN and ribavirin is a current standard therapy for patients with CH-C. Ribavirin by itself possessed no anti-HCV effect for the patients²².

HCV ANT ANTIVIRAL THERAPY

Because of the lack of randomised studies, a reliable estimation of the impact of antiviral treatment on the long-term outcome of patients with HCV infection is very difficult to appreciate. Several cohort studies, designed to assess the response to Interferon (IFN) therapy in cirrhotic patients, documented a better prognosis for patients who received IFN regardless of HCV-RNA eradication. Two retrospective reports confirmed these data, and altogether these studies have demonstrated that sustained virological response (SVR) is significantly associated with a reduction of decompensation rate, HCC occurrence, and liver-related mortality. Therefore, liver disease mortality and morbidity is dependent on successful antiviral therapy, and peginterferon plus ribavirin is, at present time, the treatment of choice before direct-acting antivirals (DAAs) will be available²³.

The patients treated with Interferon-based therapy, with sustained viral response showed an improvement of reduction of progression to cirrhosis and development of HCC. However, still remains a residual risk of hepatocellular carcinoma indicating the need for careful follow-up using ultrasonography every six months in cirrhotic patients, even in those showing persistently normal ALT and undetectable HCV RNA levels after antiviral therapy²⁴.

²¹ Harrison SA, Brunt EM, Qazi RA, Oliver DA, Neuschwander-Tetri BA, Di Bisceglie AM, et al. Effect of significant histologic steatosis or steatohepatitis on response to antiviral therapy in patients with chronic hepatitis C. *Clin Gastroenterol Hepatol* 2005;3:604e609.

²² Liao JK, Laufs U. Pleiotropic effects of statins. *Annu Rev Pharmacol Toxicol*. 2005;45:89–111; Ikeda M, Abe K, Yamada M, Dansako H, Naka K, Kato N. Different anti-HCV profiles of statins and their potential for combination therapy with interferon. *Hepatology*. 2006;44:117–125.

²³ Daniel S, Ben-Menachem T, Vasudevan G, Ma CK, Blumenkehl M, Hayashi N, Takehara T. Antiviral therapy for chronic hepatitis C: past, present, and future. *J Gastroenterol*. 2006;41:17–27.

²⁴ Hican IJ, Jonsson JR, Prins JB, Ash S, Purdie DM, Clouston AD, et al. Modest weight loss and physical activity in overweight patients with chronic liver disease results in sustained improvements in alanine aminotransferase, fasting insulin, and quality of life. *Gut* 2004;53:413e419.

The negative impact of IR on response to antiviral therapy has been demonstrated in several studies. Romero-Gómez et al, showed marked differences in the rates of SVR in HCV infected patients with and without IR, assessed by HOMA-IR. In this study, 23 of 70 (32.8%) patients with genotype 1 CHC and IR (HOMA-IR > 2) achieved a SVR vs 26 of 43 (60.5%) genotype 1 CHC patients without IR. These findings were independently confirmed, and extended to genotypes 2 and 3.

In a recent large-scale study in CHC patients, pretreatment HOMA-IR was associated with SVR to combination therapy with (PEG-IFN)/ribavirin, in particular among “difficult-to-treat” patients (genotype 1b and high baseline viral loads). These findings suggest that pretreatment measurement of HOMA-IR, in combination with tests of HCV genotypes and viral load, may be used as the determinants for selecting regimens in CHC patients.

EFFECT OF IMPROVING INSULIN RESISTANCE ON SUSTAINED VIROLOGIC RESPONSE.

Since IR is considered a factor that can be modified and improved by various interventions, it would be valuable to evaluate by prospective studies whether the improvement of IR before initiation of the combination therapy for CHC can significantly increase the SVR rate. It has been proved that weight reduction will have an impact on both liver histology and biochemistry in patients diagnosed with CHC²⁵.

CONCLUSION

Patients with chronic HCV have an increased prevalence of steatosis. Accumulating evidence suggests that steatosis plays a role in HCV-related fibrosis, and support for this also comes from studies showing that weight reduction in these patients leads not only to a decrease in steatosis but also improvement in fibrosis score. Whether weight reduction might improve response to antiviral therapy is an important unanswered question that requires further study.

Morbidity and mortality in cirrhosis is mainly associated with complications of liver cirrhosis and HCC occurrence. Therefore, the main goal of therapy is to inhibit viral replication and decrease liver necroinflammation that is directly related to development of cirrhosis and HCC.

Among patients treated with IFN-based therapy, those with SVR showed a significant decreased of progression to cirrhosis and development of HCC. However, a residual risk of hepatocellular carcinoma still remains, indicating the need for careful follow-up using ultrasonography every six months for patients with cirrhosis, even in those showing persistently normal ALT and undetectable HCV RNA levels after antiviral therapy.

IR is one of the pathological features in patients with HCV infection. IR plays a crucial role in the development of various complications and events associated with HCV infection. Mounting evidence indicates that HCV-associated IR may cause hepatic steatosis, hepatic fibrosis, resistance to anti-viral treatment, hepatocarcinogenesis and proliferation of hepatocellular carcinoma; and extrahepatic manifestations.

Thus, HCV-associated IR is a therapeutic target at any stage of HCV infection.

²⁵ Lam NP, Pitrak D, Sperlakis R, Lau AH, Wiley TE, Layden TJ. Effect of obesity on pharmacokinetics and biologic effect of interferon-alpha in hepatitis C. *Dig Dis Sci* 1997;42:178e185; Poynard T, Ratziu V, McHutchison J, Manns M, Goodman Z, Zeuzem S, Younossi Z, Albrecht J. Effect of treatment with peginterferon or interferon alfa-2b and ribavirin on steatosis in patients infected with hepatitis C. *Hepatology*. 2003;38:75–85. [PubMed]

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DIFFERENTIAL DIAGNOSIS BETWEEN COLONIC CROHN'S DISEASE AND ULCERATIVE PANCOLITIS: ENDOSCOPIC AND HISTOLOGIC CRITERIA

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ABSTRACT

THE PURPOSE OF THIS PAPER IS TO CLARIFY THE PARAMETERS USED FOR A DIFFERENTIAL DIAGNOSIS BETWEEN CROHN'S COLITIS AND ULCERATIVE PANCOLITIS AND TO IDENTIFY THOSE WITH THE HIGHEST DIAGNOSTIC VALUE. THE IMPORTANCE OF THE STUDY WILL BE REFLECTED IN LOWER RATES OF DIAGNOSIS DELAY, LOWER RATE OF LONGTERM COMPLICATIONS AND INTO A BETTER THERAPEUTIC APPROACH.

THIS IS A RETROSPECTIVE STUDY, WHICH WAS PERFORMED ON 54 PATIENTS DIAGNOSED WITH CROHN'S COLITIS OR ULCERATIVE PANCOLITIS, WHO WERE ANALYZED EPIDEMIOLOGICALLY AND PHENOTYPICALLY. THEY WERE DIVIDED IN 2 GROUPS AND COMPARED BASED ON THE ENDOSCOPICAL AND HISTOLOGICAL CHARACTERISTICS.

THE ENDOSCOPIC LESIONS WITH THE HIGHEST DIAGNOSTIC VALUE FOR CROHN'S WERE FOUND TO BE THE LONGITUDINAL AND DEEP ULCERS, AND ALSO, HIGHER SEVERITY OF LESIONS THE ON THE RIGHT COLON. AS FOR ULCERATIVE PANCOLITIS HISTOPATHOLOGICAL CHARACTERISTICS WITH THE HIGHEST DIAGNOSTIC VALUE WERE FOUND TO BE THE ASSIMTERICAL AN DIFFUSE DISTRIBUTION OF ARCHITECTURAL CHANGES, CRIPTITIS AND CRYPTIC ABSCESES. THE EPITHELIOID GRANULOMA, ONCE CONSIDERED GOLD STANDARD FOR A DIAGNOSIS OF CROHN'S DISEASE IS RARELY ENCOUNTERED ON THE TISSUE SAMPLES FROM COLONIC BIOPSIES. BASAL PLASMOCITOSIS IS PRESENT IN BOTH DISEASES, BEING A MARKER OF CHRONIC COLITIS AND HAVING NO SPECIFICITY FOR CROHN'S OR ULCERATIVE COLITIS.

KEY WORDS: CROHN'S DISEASE, ULCERATIVE PANCOLITIS, CHRONIC INFLAMMATORY COLITIS, DIFFERENTIAL DIAGNOSIS

INTRODUCTION AND AIM OF STUDY

Epidemiology of IBD is changing in Eastern Europe as population is adopting a life style similar to western countries. In Romania diagnosis and therapeutic management of patients with IBD is conducted mainly in referral centers. The national epidemiological studies show a raising

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incidence of IBD, with higher UC incidence³. A long diagnostic delay correlates with an increased rate of complications and also, a higher need for IBD-related surgery⁴.

Although Crohn's disease and ulcerative pancolitis have some clear distinctual characteristic, a clear separation may not be possible in 5-15 % of patients with IBD colitis⁵. More than that, 14% of patients first diagnosed with Crohn's Disease or Ulcerative pancolitis are found to be missclassified in the subsequent years (5,6). Differentiation between these two is important because each of them associates a distinct therapeutic management and prognosis. At the moment, no single gold standard test is available⁶.

The differential diagnosis between colonic Crohn's Disease and ulcerative pancolitis based on endoscopic (macroscopic) and histologic criteria will be discussed in this paper with the purpose of identifying the features with the highest diagnostic value.

METHODS

A total of 54 patients with IBD pancolitis who presented in our clinic between 1.05.2015-1.11.2015 were reviewed from the National Romanian registry IBDPROSPECT. The group was analyzed based on the epidemiological and phenotypical features, severity of disease, mean disease duration, rate of diagnostic change and rate of postsurgical reclassification.

For the second stage of the analysis, we considered two groups according to the established diagnosis at the moment of evaluation: UC (ulcerative pancolitis) and CD (Crohn's Disease). In each group we studied the endoscopic and histological features. As for endoscopic characteristics, Seven parameters were followed: symmetry of lesions, continuity of mucosal involvement, ulcer's type (superficial/deep/longitudinal/confluent), hyperemia, edema, mucosal hemorrhage and association with perianal disease. As for the histological characteristics, eight parameters were followed: uniformity of inflammation, distribution of the chronic inflammation (focal/diffuse), architectural crypt change, basal plasmocytosis, mucin depletion, crypt atrophy, cryptitis, type of granuloma encountered.

Based on the grade of diagnostic "stability" and on the percentage of misdiagnosis we identified some features with better diagnostic value than the others. We also identified some possible error factors in patients whose first diagnosis changed in time.

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RESULTS

Out of the total number of fifty-four patients, at the time of evaluation twenty six of them had an established diagnosis of UC (48.14%) and twenty eight a diagnosis of CD (51.85%) based on the endoscopic findings. The median disease duration was 5,6 years (4,15 y for UC and 7.11y for CD). In the UC group the males formed the majority (70.38%) . In the CD group, the difference between men and women was less significant (42.8 % females vs 57.15 % males). In both groups, most of the patients were found to have 17-40 years at the time of diagnosis (80,7 % in UC and 67.86 % in CD).

As for the histological characteristics we evaluated a number of 42 biopsy specimens , out of which 32 were classified as UC and 10 with UC. A high certainty of the histologic interpretation was found in 66.6 % of patients with UC and in 52.5 % of patients with CD. The remaining (36.36%) were diagnosed as Chronic IBD. In order to obtain a certain diagnosis in these patients combined evaluation according to endoscopic and clinical findings was advised.

We had a total of 9 (16.6 %) new cases (<1 year disease duration, 5 UC+ 4 CD). In the UC group 7.69% of patients had a wrong first diagnosis of CD, and 7.69% whose endoscopic pattern became discontinuous and also the pathological features became focal on treatment. This is frequently a trap in changing the diagnosis, but these changes must always be interpreted in clinical and therapeutic context of each patient. In the CD group the first diagnosis was changed in 5 (17.85%) patients, 3 of them (10,71%) with a first diagnosis of UC and 2 patients (7.14%) with a first diagnosis of indeterminate colitis. The first diagnosis changed in time in 12.96 % of all patients included in the study. Most of the misdiagnosis were established in patients with severe flares (71%).

One patient`s diagnosis of UC changed in CD after proctocolectomy and interpretation of the surgical specimen, based on the presence of transmural chronic inflammation and multiple colonic stenosis. It is important to mention that this patient also had a severe flare at the time of diagnostic endoscopy associating unresponsiveness to corticoids and anti-tnf alfa therapies. Although the postsurgical reclassification of UC into CD described in the literature is not rare, occurring in 3.5%-12% of prospective and retrospective series of procto-colectomized patients⁷, we only had one patient in this situation, and this low rate (0.03%) is partially explained by the low rate of proctocolectomy performed in the study group (0.07%).

Beside the classical endoscopic characteristics for CD: assymetrical distribution of lesions which was described in 81% of patients, cobblestoning (52%) and aphtoid lesions (54%), we also observed a higher incidence of deep ulcers (25 % in CD vs 5.3 % in UC, $p<0.05$) , longitudinal and confluent ulcers (17.85% in CD vs 3.84 % in UC, $p<0.05$) and a higher severity of lesions in the right colon (28.5 % in CD vs 7.6 % in UC, $p<0.05$). The association between colonic CD and perianal disease was met in 25 % of cases.

In case of UC, the most often described endoscopical features were: continuous distribution of lesions (84.61%), hyperemia and edema (65.38%), superficial erosions (61.53%), mucosal friability (57,69%) and mucosal bleeding (on touch/spontaneous - 50%). The severity of lesions was more pronounced in the rectum and the left colon (53.84%). Discontinuous involvement of the mucosa was described in 15.38 % of cases, all of them being reported as ulcerative colitis with caecal patch.

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The following microscopic features were more often associated with UC: uniform distribution of the inflammation (91.6%), diffuse chronic inflammation (83.3%), diffuse distortion of crypt architecture (75%) with crypt branching and atrophy (50 %), irregular villous architecture (75%), crypt abscesses (75%), cryptitis (83.3%) and also pronounced mucin depletion (33.33%).

Focal chronic inflammation was described in 80 % of patients diagnosed with CD, irregularly disposition of the inflammatory cells was present in 60% of cases and focal crypt irregularity (but without crypt atrophy) in 80 % of cases. Cryptitis and crypt abscesses were also found in CD (40 % for each) but unlike in UC, their distribution was focal.

Epithelioid granuloma is a feature commonly found in CD but it was also described in UC in case of ruptured crypts or mucin extravasates⁸. However, we found no granuloma in the group diagnosed with UC or in the one with CD.

Basal plasmocytosis was found in UC (58.3%) but also in CD (60 %) , so it was not useful for differentiating UC from CD.

When interpreting a biopsy specimen where the granuloma was absent (as it happened in 100% of cases in this study), we used a number of 3 other features for establishing the diagnosis of CD (eg.: non-uniformly distribution of the inflammatory cells, focal crypt irregularity or focal inflammation). However, if the granuloma would've been present and the infections associated with its formation excluded then only one other feature (focal inflammation/ focal architectural abnormalities) would've been needed for establishing the diagnosis of CD.

DISCUSSION

When making an endoscopic differential diagnosis, attention should be given if longitudinal or deep ulcers are found or if the lesions get more severe as we progress into the proximal colon, these findings being highly suggestive of CD. Even if their presence doesn't exclude UC, their association with the disease is rare.

As for the pathological differential diagnosis, some features are really valuable in diagnosing UC: continuous and symmetrical inflammation of the mucosa, diffuse crypt distortion with crypt atrophy, irregular villous surface and mucin depletion. Cryptitis and crypt abscesses are found in both UC and CD, and only their distribution (focal/diffuse) may be important when differentiating these diseases. Basal plasmocytosis is also found with similar frequency in CD and UC, so its role in the differential diagnosis is limited.

Even if the epithelioid granuloma is almost a hallmark for CD (when other granulomatous diseases or infections are excluded), this is rarely found on biopsy specimen and thus, the diagnosis can't be conducted based on its presence/absence.

In case of severe flares, the chance of a misdiagnosis may be higher and a reevaluation after proper treatment should be done for diagnosis purposes.

More than that, the differential diagnosis should be made in the early phase of the disease, before any treatment is initiated, as medications change the pattern and make the differentiation difficult, if not impossible; Being aware of the changes in the disease pattern (patchiness, rectal sparing or normal mucosa) associated with medication is important and reduces the chances of a misdiagnosis.

⁸ Gian Eugenio Tontini, Maurizio Vecchi, Luca Pastorelli, Markus F Neurath, and Helmut Neumann; Differential diagnosis in inflammatory bowel disease colitis: State of the art and future perspectives ;World J Gastroenterol. 2015 Jan 7; 21(1): 21–46.

Despite detailed histologic and endoscopic criteria used to differentiate between pancolonic involvement of CD and UC, an accurate discrimination between these two is not yet optimal among gastroenterologists and pathologists and there is no pathognomonic feature accepted in the literature.

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