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Medical Sciences

COVID-19 INFECTION IN THE CHILD, IN A SUPPORT HOSPITAL, DURING THE ALERT STATE

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ABSTRACT:
THE UNPRECEDENTED PERIOD WE ARE GOING THROUGH FORCES US, ALL CLINICIANS, TO OBSERVE THE MANIFESTATIONS OF COVID-19 INFECTION, AT VARIOUS AGES.
IN CHILDREN, AS A PECULIARITY, IN 12 MONTHS OF PANDEMIC, THE PREVALENCE OF POSITIVE CASES IN THE TOTAL NUMBER OF HOSPITALIZATIONS WAS LOW, BELOW 10%. THE SEVERITY OF THE REPORTED CASES WAS LOWER THAN IN ADULTS, AND THE DIGESTIVE MANIFESTATIONS WERE IN THE FOREGROUND, TO THE DETRIMENT OF THE RESPIRATORY ONES, THESE BEING THE 2 LARGE GROUPS OF DISEASES STUDIED COMPARATIVELY CHILD-ADULT.
NEUROLOGICAL MANIFESTATIONS WERE ABSENT IN DIAGNOSED AND HOSPITALIZED CASES.

KEYWORDS: CHILD, COVID-19 INFECTION.

INTRODUCTION

Coronaviruses, such as the current SARS-CoV-2, have produced varying degrees of respiratory infections from asymptomatic to severe, some causing death.

Coronaviruses are typically more than 200 species capable of causing respiratory infections in humans. Historically, there were previously SARS or MERS epidemics, with self-limited development but with severe evolution, encountered in the Middle East. Likewise, common types of common colds or coryza are caused by types of coronaviruses.

Transmission of SARS-CoV-2 infection is done by:

- Pflügge drops, produced by the infected person when he coughs or sneezes
- through close contact with the infected person

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- non-hygiene of hands, by touching contaminated objects

In the body, the virus attaches to the cells of the nasal mucosa, multiplying until it reaches the lungs, then spreading in the body.

The incubation period is 14 days, on average the onset of symptoms occurs after about 5 days. The investigation of the COVID-19 immune response is still unclear, not knowing whether or not subsequent reinfection is related to the level of the protective antibody titer.

Most infected people have mild symptoms, only 20% of cases can develop a severe form.

The severity of the form is not necessarily related to comorbidities, as originally thought.

Mild forms have been described in terminal neoplasms or those with autoimmune diseases and severe forms in previously healthy patients, the explanation for which is the existence of that plenary immune response, known as the "cytokine storm".

In addition to their own respiratory symptoms, anosmia and ageuzia, unusual symptoms, have been frequently linked to COVID infection in adults and adolescents.

A study conducted in March 2020 at UC San Diego Health on 102 patients tested positive for SARS-CoV-2 PCR demonstrated the increased prevalence and unique presence of sensory deficits, fully recoverable in 2-4 weeks.

Children are an important vector of infection in the community. According to some cases in China, plausible community transmission was more common from adult to child, or vice versa.

The development, at present, of some strains with a higher contagiousness (UK strain, Brazilian variant) has determined the affect of children in a higher percentage compared to the previous circulating type.

The SARS-CoV-2 infection in children, in the midst of the COVID-19 pandemic, has certain peculiarities compared to the infection of adults.

The state of viremia in children did not have the same significant character as in adults, manifesting itself, in most cases, by low-grade fever, agitation or mild adynamism, loss of appetite. Myalgias, headache, anosmia and ageusia have been described in older children.

The disease-specific clinical manifestations were polymorphic, as in adults but with a different aspects.

The clinical aspect for respiratory manifestations was with cough, rhinorrhea, dysphagia, dysphonia, and stetacustic bronchial rales, snoring or subcrepitant rales were perceived.

Digestive signs and symptoms were: anorexia, nausea, vomiting, abdominal pain, and diarrhea.

Skin manifestations - nonspecific eruptions with a morbiliform character, with any skin localization.

MATERIAL AND METHOD

Out of the total number of hospitalizations in 12 months, 363 were a number of 26 confirmed cases of COVID-19. (Fig 1)

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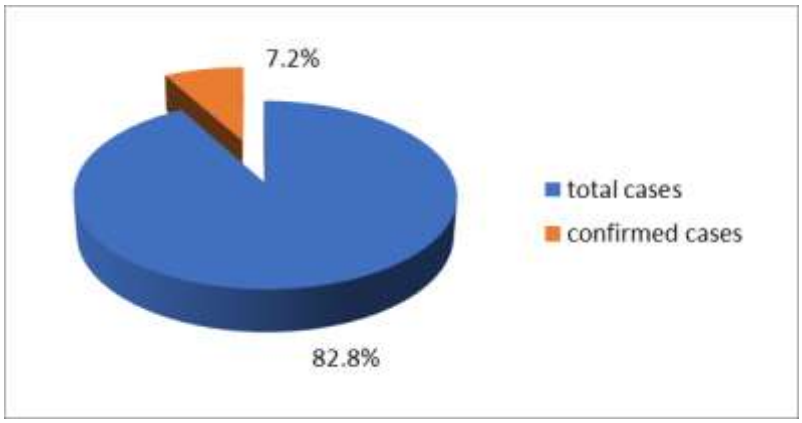

Figure 1 Number of conformed cases

No case determined in children resulted in serious evolution and hospitalization in the ATI department.

Of the 26 cases:

- 1 case showed pultaceous tonsillitis
- 1 case was hospitalized for left lateral cervical adenitis, in the context of congenital neutropenia
- 2 cases presented at hospital herpangina
- 4 cases were with rhinopharyngitis
- 5 cases were diagnosed with pneumonia
- 5 cases were diagnosed with bronchiolitis
- 8 cases were gastroduodenitis and gastroenterocolitis.

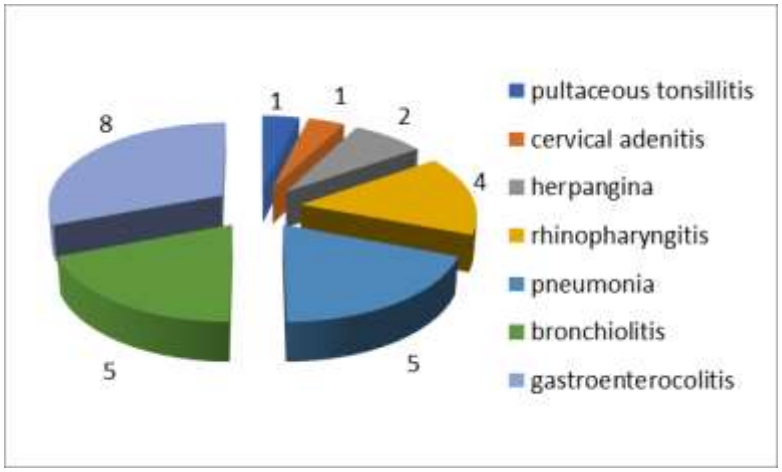

Figure 2 Pathology in the hospitalized patients

It should be mentioned that, except for the patent digestive forms, in 9 of the other cases, there were secondary manifestations involving digestive participation with diarrhea, nausea.

Anosmia and ageuzia were reported in 7 cases in total, all adolescents (2 with rhinopharyngitis, 1 with herpagina, 1 with pultaceous tonsillitis and 4 with gastroduodenitis).(Fig 3)

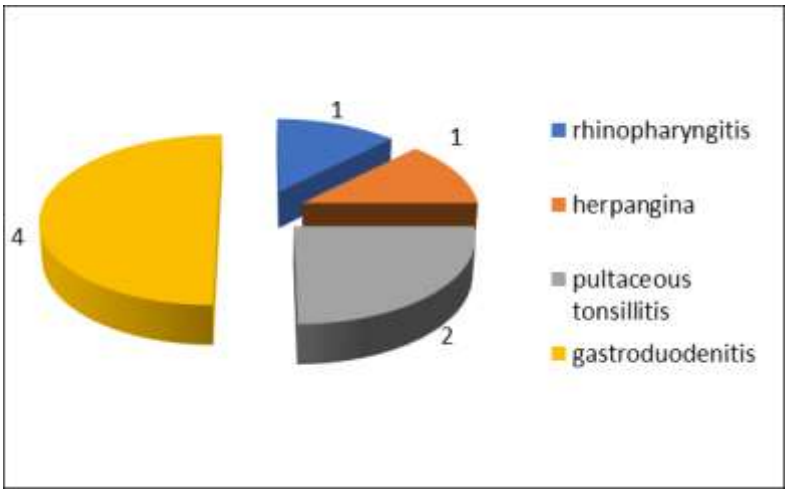

Figure 3 Anosmia and ageuzia cases

CONCLUSIONS

Practically, out of a total of 26 confirmed COVID-19 cases, 17 showed digestive manifestations.

Unlike the clinical aspects of SARS-CoV-2 infection in adults, where respiratory manifestations predominate, in children the digestive symptoms were in the foreground.

Compared to the total number of cases hospitalized in 12 months, COVID-19 positive cases represented a small percentage, of approximately 7.2%, which means a low share, in the global context of viruses.

The condition can be extremely polymorphic, and no clinical manifestations can be ruled out from a possible positive infection.

Illustrative is the case of left laterocervial adenitis, including the case of a patient with severe neutropenia, in afebrility.

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