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Authors:	Mihaita C. D. DECA Mihai B. BRAILA Anca Daniela BRAILA

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OLD RUPTURES OF THE PERINEUM (ORP) WITH CYSTORECTOCELUM AND STRESS URINARY INCONTINENCE (SUI). DIAGNOSE AND THERAPEUTIC ASPECTS

Mihaita C. D. DECA¹

Mihai B. BRAILA²

Anca Daniela BRAILA³

ABSTRACT:

ORP APPEAR AS A CONSEQUENCE OF OBSTETRIC TRAUMA AFTER A SPONTANEOUS BIRTH OR AFTER A BIRTH WITH OBSTETRIC INTERVENTION, MOST OFTEN THE FETUS EXTRACTION WITH THE APPLICATION OF FORCEPS. THE PROCEDURES AND THE TECHNIQUES OF DIRECT VAGINAL URETHROCYSTOPEXY ARE STILL PRACTICED SUCCESSFULLY TODAY IN THE TREATMENT OF ORP WITH CISTORECTOCELUM AND SUI. SEVERAL COMPARATIVE STUDIES BETWEEN THESE PROCEDURES AND THE TECHNIQUES OF INDIRECT URETHROCYSTOPEXY IN THE ABDOMINAL TRACT HAVE SHOWN THAT FOR THE SURGICAL CORRECTION OF SUI, THE INDIRECT PROCEDURES ARE MUCH MORE EFFECTIVE IN TIME, AT 5 OR 10 YEARS. THE BURCH TECHNIQUE HAS LONG BEEN THE "GOLD STANDARD" OF SURGERY TO CORRECT SUI. THEIR PLACE SEEMED TO BE TAKEN BY THE SUBURETHRAL SLING, MUCH SIMPLER AND MUCH MORE EFFICIENT THAN THE CLASSICAL TECHNIQUES IN SOLVING THE SUI, PRACTICALLY ONLY PARTIALLY TRUE, AND SOME FAILURES WERE REPORTED IN THE SPECIALIZED LITERATURE REGARDING THE INFALLIBLE VALUE OF THE ALL SUBURETHRAL SLING, WITH THE APPEARANCE OF SUB-URETHRAL NECROSIS, ABSCESSSES, SEPTIC CONDITIONS, PATHOLOGICAL ASPECTS INITIALLY UNKNOWN TO THE ENTHUSIASTS OF APPLYING THE PROCEDURE. IN ORDER TO SOLVE ORP WITH CISTORECTOCELUM AND SUI, ACCORDING TO OUR EXPERIENCE, MODERN TECHNIQUES WITH SUB-URETHRAL SLING TOT CAN BE ADDED TO THE CLASSIC TECHNIQUES, AVAILABLE TO THE EXPERIENCED SPECIALISTS WHO HAVE SUCCESSFULLY PERFORMED ANY OF THESE PROCEDURES.

KEYWORDS: OLD RUPTURES OF THE PERINEUM, CYSTOCELE, RECTOCELE, URINARY INCONTINENCE, ANTERIOR COLPORRHAPHY, POSTERIOR COLPORRHAPHY WITH MYORAPHY LEVATOR ANI

¹ PhD Student, Department of Urology, University of Medicine and Pharmacy of Craiova, Craiova County Emergency Clinical Hospital

² Department of Obstetrics and Gynecology, University of Medicine and Pharmacy of Craiova, Craiova County Emergency Clinical Hospital

³ Department of Obstetrics and Gynecology, University of Medicine and Pharmacy of Craiova, Craiova County Emergency Clinical Hospital

INTRODUCTION

ORP appear as a consequence of obstetric trauma after a spontaneous birth or after a birth with obstetric intervention, most often the fetus extraction with the application of forceps. It was observed that after such situations, it could go further in the vagina axes taking with it in the same direction the descent of the vaginal walls of the adjacent portion of the urethra and bladder anteriorly, of the posterior rectum. This pathology defines the uterus-vaginal descent or prolapse. This pathology is a concern for multiparous women and occurs to the third decade age group⁴. We were concerned in the research with multiparous patients with ORP and descent of the vaginal walls, anterior (anterior colpocel and cystocel) and posterior (posterior colpocel and rectocel).

It is important to associate the urinary incontinence during effort (SUI), a pathology that can be masked by utero-vaginal prolapse⁵. It is also important to find out associations or coexistence with other pelvic-genital lesions (cervical dysplasia, hypertrophic elongation of the cervix, cervical cancer, hypertrophic lesions of the endometrium, endometrial adenocarcinoma, single or multiple uterine fibroleiomyomas, benign or malignant tumors, external endometriosis of rectum-vaginal septum, bladder tumors, elitrocel).

Their presence contraindicates simple surgical intervention, requiring particular, complex treatments⁶. For the surgical correction of ORP with cistorectocel and SUI, possible associated general diseases were looked for, taking into account the age of the patients, in order to establish the anesthetic and operative risk (cardiopathy, hypertensive disease, nephropathy, obesity, coagulopathy, diabetes mellitus, medular lesions, coxarthrosis).

Acad. EB Aburel used to say: "of the prolapse one does not die, but of the operation for the prolapse one could die". Another important aspect in the surgical resolution of the ORP with cistorectocelum and SUI is the accurate knowledge of the local pelvic-genital anatomy, involved in suspension and support of the pelvic-genital organs (round and wide ligaments, parameters, bladder-uterine, uterine-sacral ligaments, bladder-vaginal fascia, prerectal hemitis, pelvic-perineal floor with anal lifting muscles and tendon center of the perineum).

All these anatomical formations are subjected because of the bipedal force, to the gravitational force, physiological fluctuations, hormonal balance, intra-abdominal static pressure, risk of descent or prolapse. The state of gestation, birth, obstetric interventions, inflammations, infections, tumors, various traumas, can affect the fibro-elastic and muscular structures, leading to disorders of genital statics of different degrees, an aspect that has interested us in this work, in this case, ORP with cistorectocelum and SUI⁷.

⁴ Abramov Y, Gandhi S, Goldberg RP et al. Site specific rectocele repair compared with standard posterior colporrhaphy *Obstet Gynecol* 2005; 105:314-8; Alessandrescu D., Constantinescu A. - Consideratii privind tratamentul chirurgical al incontinenței urinare la efort la femeie. Comunicare la USSM, Filiala Bucuresti, Sectia de Obstetrica - Ginecologie la sedinta din 05.06. 1972; Alessandrescu D., Popescu C. - Tratatamentul incontinenței urinare la efort prin uretrocistopexie directa pe cale vaginala. *Rev.de Obstet si Ginecol*, vol.XXX, 4, 1982

⁵ Bologna U.- Procedura chirurgicala per il trattamento dell' incontinenza urinaria da sforzo, *Minerva Ginecologia*, vol 25, No 7, 1973; Boyles SH, Weber AM, Meyn L. - Procedures for pelvic organ propapse in the United States,1979-1997. *Am J Obstet Gynecol*, 188: 108-15, 2003

⁶ Boyles SH, Edwards SR - Repair of anterior vaginal compartment.*Clin. Obstet Gynecol* 2005, 48-682-90; Braila M.B., Oprescu S., Sabina Berceanu, Horhoianu V.- Tratatamentul chirurgical in ginecologie, pag.106-162, Editura Medicala, Bucuresti, 2002

⁷ Bratila P., Bratila Elvira, Stanculescu Ruxandra, Cirstoiu Monica - Reevaluarea procedeelelor clasice de tratament chirurgical in tulburarile de statica pelvina / Referat general, Al XI- lea Congres al Societatii Romane de Uroginecologie (vol.rezumat), Mamaia, 3-5, IX, 2014; Darii Plopa Natalia,Anghelache Lupascu Ivona - Tratat sau nu incontinenta urinara in acelasi timp cu chirurgia prolapsului utero-vaginal, vol. rezumat, al XI-

MATERIAL AND METHOD

The study was carried out in the Clinic II Obstetrics-Gynecology and Urology Clinic of the County Clinical Hospital of Emergency Craiova during the period 2017-2019. Some of the patients hospitalized and operated for ORP, cistorectocelum and SUI were taken for analysis. Usually there are cutaneous, mucosal and musculoskeletal lesions, occurring during birth at the level of the vulvar cleft, affecting between the pubic and sacral anterior vaginal wall, urethra and bladder, posterior vaginal wall, rectum-vaginal septum, rectum, perineum between the posterior vulvar commissure and the anus. They are considered sequels because they have been insufficiently corrected or defective at birth.

From the anatomical-clinical point of view they are classified in:

- ORP grade I / incomplete ruptures at the level of the posterior commissure;
- ORP grade II / complete ruptures affecting the anterior part of the perineal central fibrous nucleus and anal sphincter, without affecting the anal mucosa;
- ORP grade III / complete ruptures, complicated ruptures or ruptures that make wide communication between the vulva and anus⁸.

When the suture does not occur immediately or when this suture is incorrect, the perineum rupture is healed per secundam and most often defective⁹.

The scarry lesions characteristic for the old perineum ruptures are classified into three categories:

- a) Incomplete old ruptures or complete ruptures not complicated
- b) Old, complete, complicated breaks
- c) Bladder- and rectovaginal fistulas (one of the forms of defective healing of the perineum ruptures grade III).

Ethiopathogenic, many authors insist on two distinct etiological circumstances:

- constitutional anomaly by shortening the ano-pubic distance;
- technical error¹⁰.

In all the cases, the old perineal lesions result from the existence of identical factors:

- deficient assistance at birth;
- breaks stopped in their spontaneous evolution;
- absence of immediate surgical suture;
- performed but incorrect suture;

lea Congres al Societatii Romine de Uroginecologie, Mamaia, 3-5, sept. 2014; Georgescu Braila M, Sabina Berceanu, Georgescu P. - Histeroscopia si Uretrocistoscopia.Endoscopia ginecologica, Editura Universalia, Craiova, 1995

⁸ Grigoras D., Sas T, Pirtea L.- Tratamentul rectocelului voluminos prin pexie la ligamentele sacrospinoase utilizind un lambou de mucoasa vaginala / Al XI-lea Congres al Societatii Romane de Uroginecologie, 3-5 Sept. 2014; Klaus Goeschen - Tratamentul formelor grave de incontinenta urinara / Al XI-lea Congres al Societatii Romane de Uroginecologie, Mamaia, 3-5 Sept.2014; Proca E. - Urologia Ginecologica,Tratat de patologie chirurgicala, vol VII, Ed. Medicala, pag.521-554, 1983

⁹ Radulescu C. - Urologia Ginecologica, vol I, vol II, Editura Medicala, Bucuresti, 1988, 1995; Rebedea T.- Genitologia, Curs litografiat, 1981, UMF Carol Davila, Bucuresti; Roxana Vasiliu, Maria Turcan, Saba N, Banceanu G, - Tehnici chirurgicale asociate in terapia prolapsului genital cu incontinenta de urina la efort. Al XI-lea Congres de Uroginecologie (vol. rezumate), Mamaia, 3-5 Sept 2014

¹⁰ Schorge J.O., Schafter J.L., Lisa M. Halvorson, Barbara L. Hoffman, Karen D. Bradshaw, F.G. Cunningham, Williams gynecology / Anterior colporrhaphy, posterior colporrhaphy, perineorrhaphy, 1004, 1011, 1015, Williams Gynecology, 2008; Ulmsten U., Henriksson L, Johnson P., Varhos G.: An ambulatory surgical procedure under local anesthesia for treatment of female urinary incontinence; Int Urogynecol J Pelvic Floor Dysfunct; 7:81-5, 1996; Virtej P., Ginecologia, Editura All, Bucuresti, 1997; Waetjen L.E., Subak L.L., Shen H.: Stress incontinence in the United States, Obstetrics Gynecology, 101, 671-6, 2003

- infection that leads to disintegration of the perineal wound.

There were studied 62 patients hospitalized and operated between 10.02.2017-10.12.2019. The symptoms that caused the patients to consult the specialist in order to be hospitalized were:

- vicious scarring at the vaginal-perineal level;
- wide scar vagina with accentuated cystoectocelum;
- disorders of sexual life, often dissatisfaction, sometimes disappearance;
- urinary incontinence during effort;
- Variable anal incontinence, sometimes severe, severe, complete for gas and faeces.

The objective examination showed :

- the anus and vagina are juxtaposed, meaning the disappearance of the perineal spine;
- the vulva is beanta, with the disappearance of the posterior commissure;
- leukorrhea that denotes a vulvo-vaginitis with various flora, which can lead to itching, itching lesions, ulceration.

The objective examination with the speculum or valves shows :

- the condition of the vagina, allowing sampling for bacteriological and parasitological examination;
- the size of the cystocelum, of the rectocelum;
- the macroscopic aspect of the cervix, of the external cervical orifice, the presence of possible cervical lesions that would require the Lugol test or acetic acid, colposcopic examination, sampling for histopathological examination.

The vaginal examination appreciates the condition of the uterus, the consistency, any deviations, the sensitivity to pressure and mobilization, the state of the attachments, the tonicity of the anal lifting muscles, the expression of the urethra.

The rectal examination appreciates the tonicity of the anal sphincter, the extent of the rectocelum, the limits of the perineal rupture. The compulsory serological and urinary preoperative investigations were completed with the cardiological examination, EKG, Rx. Lung, pelvic-genital ultrasound examination.

RESULTS

The patients investigated and operated for ORP, cistorectocelum and SUI were aged between 45-65 years, being divided into two groups:

- 45-55 years;
- 56-65 years old.

In most cases, the environment of origin was urban (49 cases respectively 79.3%) and rural (13 cases respectively 20.7%).

The anesthesia performed in all the operated cases was the spinal cord with marcaine.

The surgical treatment of the uterine-vaginal prolapse recognizes multiple techniques or procedures:

- anterior colporafia with recalibration of the urethra, Kelly-Marion procedure, as a technique of direct vaginal urethro-cystopexy, posterior colpoperineorpha with high myoraphobia of the anal muscles, practiced in RVP with cystorectocelum and IUE;
- Triple operation from Manchester;
- total vaginal hysterectomy with or without mesh made of polypropylene;
- TOT sub-urethral sling, retropubian TVT.

The operations that we practiced and discussed in this paper were:

- The anterior colporafia with the recalibration of the urethra, Kelly-Marion. Among other innovative procedures in urine-genital surgery H. Kelly in 1908 introduced the technique of direct vaginal urethrocystopexy. The technique consists of the incision and longitudinal and lateral take-off of the anterior vaginal wall up to 15-20 mm below the urethral meatus with cystocelum highlighting. The periventricular tissue is sutured from one side to the other with separate suburethral threads passing over the urethro-bladder junction creating a kind of suburethral "mattress". Recovery of the anterior vaginal wall with separate wires.

G.Marion in 1920, independent of Kelly, practiced a similar type of process. Wide take-off of the anterior vaginal wall, then of the bladder on the cervix, isthmus and body. Broader highlighting of the cystocelum that it infuses "in the bursa" with a single thread. E.B.Aburel and T.Redea in 1964 practiced this process with certain special techniques, the technique we used us too in the operated cases. The two academics proceeded to highlight the cystocelum much wider by taking off much higher up to 10 mm below the urethral and lateral meatus, with the sectioning and ligation of the bladder pillars.

The stocking of the cystocelum in bursa with a single thread, catgut or vicryl. In order to consolidate the bag, they mounted a wire in the form of the letter "Z" starting from the level of the vagino-bladder dihedral angle from the left of the operator, loading on the Halban fascia and as solid as possible, from the pericyst under the urethra at 20 mm below the meatus to the vagino bladder right dihedral angle.

With the same wire it crosses obliquely passing superficially through the bursa to the most caudal point of the dihedral on the left. The thread then passes horizontally below the base of the bursa, loading a few mm from the thickness of the cervix, resistant tissue that does not allow the bag to slide down, until the dihedral on the right "in the mirror". The "Z" wire is closed with calculated tension.

The anterior colporafia in the median column of sub-urethral support with separate threads of catgut or vicryl. In older patients, over 60 years of age, without sexual activity, the two operators used an original sub-urethral support procedure with a "in redingot" vaginal autograft flap, a kind of precursor procedure for today's suburethral sling.

- The posterior colpoperineoraphia with high myorafia of anal muscles lift. The cutaneous-mucosal arch incision at the level of the posterior vulvar commissure. Progressive take-off with the sharpless scissors entering bilaterally in the boxes of the anal lifters. High myoraphia of elevators with 4-5 floors of vicryl wires. Hemostasis control.

Recovery of the vaginal plane takes place without colpectomy with separate nylon threads on the skin. Vaginal dressing, 24 hour bladder drainage, sterile dressing. With these two techniques we operated the 62 patients. The results were good with vital prognosis, beeing good and very good from the functional point of view. There were no incidents, accidents, complications and postoperative complications.

DISCUSSIONS

The anterior colporaphia and the posterior colpoperineoraphia with the myoraphia of the anal elevators are two surgical procedures successfully performed in the treatment of ORP with cistorectocelum and SUI. The resolution of the SUI is less efficient, in our opinion and of the majority of the operators, compared to the indirect urethrocystopexies on the abdominal route, respectively the Burch and Lapidés techniques, without bringing into

discussion the procedure of the suburethral sling TOT. Also, it should not be overlooked that solving the ORP is just as important for the patient as the correction of the EUS. In many other situations of ORP with cistorectocelum and SUI when mounting the suburethral sling TOT, at the patients' request, we also practiced the anterior colporaphy, the posterior colpoperineoraphy with the mioraphy of the anal elevators.

CONCLUSIONS

The procedures and the techniques of direct vaginal urethrocystopexy are still practiced successfully today in the treatment of ORP with cistorectocelum and SUI. Several comparative studies between these procedures and the techniques of indirect urethrocystopexy in the abdominal tract have shown that for the surgical correction of SUI, the indirect procedures are much more effective in time, at 5 or 10 years. The Burch technique has long been the "gold standard" of surgery to correct SUI.

Their place seemed to be taken by the suburethral sling, much simpler and much more efficient than the classical techniques in solving the SUI, practically only partially true, and some failures were reported in the specialized literature regarding the infallible value of the all suburethral sling, with the appearance of sub-urethral necrosis, abscesses, septic conditions, pathological aspects initially unknown to the enthusiasts of applying the procedure.

In order to solve ORP with cistorectocelum and SUI, according to our experience, modern techniques with sub-urethral sling TOT can be added to the classic techniques, available to the experienced specialists who have successfully performed any of these procedures.

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