VOLUNTARY SURGICAL CONTRACEPTION OF WOMEN OF LATE REPRODUCTIVE AGE SUFFERING FROM PELVIC ORGAN PROLAPSE – FEATURES AND BENEFITS

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ABSTRACT

In recent years there has been a noticeable "rejuvenation" of pelvic organ prolapse. Inconsistency of the pelvic floor muscles, including the omission of sexual organs, is extremely common pathology, observed almost a third of women of reproductive age. The search for effective, convenient methods of contraception for this category of patients is an important problem of modern gynecology.

We proposed a method of transvaginal voluntary surgical contraception, produced in conjunction with surgical treatment of descent and prolapse of the vaginal walls. Studied the nearest and long-term results of surgery in 50 women to which, during the surgical treatment of genital prolapse at the same time was performed transvaginal occlusion of the fallopian tubes. Control groups consisted of 30 women to which in the first step before surgical correction of pelvic organ prolapse have been performed minilaparotomy and voluntary surgical sterilization (VSS). Our method consists in penetrating into the abdominal cavity through the anterior vaginal vault, downgrading the fallopian tubes with a hook of Ramathibodi and tubal sterilization by Pomeroy method. Intra - and postoperative complications were not observed. In the late postoperative periods - the effectiveness of the method was 100%. Marked tendency to improve the quality of sexual life tells about the positive impact of elimination of genital prolapse with simultaneous DCA on the quality of life of women.

UDC CODE & KEYWORDS

■ UDC: 618.147.16.089 ■ Voluntary surgical contraception ■ Transvaginal occlusion ■ Genital prolapse

INTRODUCTION

Problem of descent and prolapse of internal genital organs continues to be the focus of gynecologists, not only due to the tendency to increase the frequency and severity of this disease, but also the fact that intervention for prolapse in the structure of gynecological operations frequency ranks third (after benign tumors and endometriosis). In the structure of gynecological morbidity the descent and prolapse of internal genital organs makes 1,7-28% (Kulakov & Adamyan, 2000; Adamyan & Blinova, 2000; Patel, Xu, & Thomason, 2007) Despite the improving the quality of obstetric care, approximately 50% of all women giving birth in term observed genital prolapse of varying severity, the disease has a wide age range, in addition, in recent years there has been a noticeable "rejuvenation" of this disease and the increasing number of complicated and recurrent forms (Kulakov, Adamyan, & Strizhakova, 2006; Krasnopolskii & Popov, 2007; Loran, 2008; Popova, 2000; Petros, 2004; Barber, 2005). Problem of genital prolapse is becoming increasingly important for women of reproductive age. Insolvency of the pelvic floor, including the omission of sexual organs, is extremely frequent pathologies observed in almost a third of women of reproductive age (Marilyn, 2007; Vysotskaya, 2008; Gorbenko, 2008; Dorosh, 2009; Zhuravlev, 2009; Yashchuk, 2009). In the treatment of prolapse and internal genital prolapse the surgery plays a leading role. In literature described in detail more than 300 ways of surgical treatment of descent and prolapse of internal genitals by vaginal, abdominal, laparoscopic or combined access, which indicates a certain degree of imperfection of each. However, the high rate of recurrence of the disease (16 to 43%) indicates a lack of efficacy of currently used surgical techniques (Adamyan & Smirnova, 2006; Ailamzyan, 2007; Klyukovkina, 2007). In modern conditions, given the trend toward "rejuvenation" of the disease, genital prolapse seems not only medical but also personal, family, social issues affecting sexual, professional and many other areas of life of patients. Reasons for the high incidence among women of reproductive age - one-third of all patients on given nosology - lie in the general deterioration in the health of women in the population.

The most important factor in maintaining the health of women who have undergone surgery for prolapse is a solution to the problem of unwanted pregnancy. It is believed that carried plastic surgery on the genitals is an absolute indication for cesarean section (Serov, 2000). Thus, women operated on for prolapse of the vaginal walls need to be informed and make a choice about their reproductive goals, i.e. they need the highly effective methods of contraception, such as voluntary surgical contraception. In this regard, the use of contraception is considered as one of the most important trends in the rehabilitation of women in the process of complex treatment of genital prolapse. It is known that when choosing a method of contraception should be considered reproductive intentions and experiences of patients, which is the driving factor of contraceptive behavior (Prilepskaya, 2000; Benagiano, 2004; Serov, 2000; Peterson, 2004). Researchers did not study these issues in women with genital prolapse.

The purpose of this study was to develop differentiated application of the principles of voluntary surgical contraception in women of reproductive age during surgery for prolapse.

Materials and methods

We observed 80 women of reproductive age with genital prolapse. Inclusion criteria were:

1. The presence of varying degrees of prolapse.

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2. Prolapse in conjunction with the elongation of the cervix.
3. Surgical treatment for pubescence and internal genital prolapsed (PaLGP).
4. Required a written informed consent of patients for the study and DCA.

Exclusion criteria were:

1. Heavy extra genital pathology.
2. Age older than 49 years.
3. Contraindications to surgical treatment.
4. The refusal of patients from the study.
5. Mental illness.
6. Expressed abnormalities in the function of bladder.

Before the surgery, underwent clinical examination by the standard method. To compare the effectiveness of different methods of voluntary surgical contraception the women surveyed were divided into groups: A - 50 women, to which at the time of surgical treatment of genital prolapse was simultaneously performed transvaginal tubal occlusion (main group); B - 30 women, to which in the first step before surgical correction of pelvic organ prolapse was performed minilaparotomy and DCA (control group). Examination of women began with the study of history. From history we found out the age of deferred gynecological and extra genital diseases, surgery. Paid attention to duration of the disease, the nature and effectiveness of the earlier curative measures. In the study of menstrual function drew attention to age at menarche, menstrual function (menstruation duration, intensity, presence of pain), the rhythm, and the duration of the cycle. Noted the age of onset of sexual activity, contraceptive methods used previously. In the analysis of the reproductive function paid attention to the number of pregnancies, births, abortions, especially of their course, complications. Especially paid attention to obstetric injury of soft tissues of the birth canal and the effectiveness of their recovery. Excluded chronic inflammatory diseases of the pelvic organs, pregnancy and delivery complications, operative vaginal delivery methods, benefits and other conditions of the body, which could lead to obstetric injuries of the cervix and vaginal walls. Further explored: occupation, residence, professional activity, features of working and living conditions, the availability of physical activity, the types of additional loads (work in the garden and suburban areas, the content of the farm cattle and small domestic cattle). Hereditary predisposition emerges from history. The age range was within 20-45 years. Basically, these were women age category of 31-40 years (52%). The mean age was $37,3 \pm 2,5$ years.

Results and discussion

From the total number of patients surveyed residents of the city were 50 (62.5%), of the village – 30(37.5%). On hereditary predisposition to prolapse pointed out 46 women (57.5%). Most patients had 2-3 births (48.7%). 22 (27.5%) women had a history of one delivery, and 19 (23.8%) - 4 or more. Parity was $2,52 \pm 0,7$, i.e. for one woman had to $2,52 \pm 0,7$ childbirth. Reproductive function characterized by a large number of births, which were accompanied by high perineal injuries (64%) (the weight of a newborn over 4000gr was 28%), high frequency of abortion. Gynecological disorders of an inflammatory nature detected in 100% of cases. From 80 women with a history of childbirth, all 80 linked their disease with childbirth. Almost half of the patients - 42 (52.5%) had a history of 1 to 4 artificial and spontaneous abortion. According to the International Classification of Diseases diagnoses in the studied group of patients were distributed as it represented in Figure 1.

Figure 1: Distribution of study patients by diagnosis

The diagnosis	n	%
Elongation of the cervix in conjunction with the old perineal tear	15	18,75
Omission of the vaginal walls with cicatrice deformity of the cervix, cystocele	45	56,25
Omission of the vaginal walls with elongation of the cervix, cystocele	12	15
Omission of the cervix in conjunction with the old perineal	8	10
Total	80	100

Source: Negmadzhanov & Nasimova (2013, 2014)

All patients in the scheduled order underwent surgical treatment. Types of surgery performed in examined women are shown in Figure 2.

Figure 2: Types of surgical interventions in women surveyed

Type of surgery	Abs.	%
Kolporrhapty front, back with kolpoperineorrhaphy levatoroplastics and sterilization by Pomeroy transvaginal access	40	50
Hysterotrachelectomy with transfer the vaults and sterilization by Pomeroy transvaginal access	10	12,5
Kolporrhapty front, back with kolpoperineorrhaphy levatoroplastics + minilaparotomy sterilization by Pomeroy	30	37,5
Total	80	100

Source: Negmadzhanov & Nasimova (2013, 2014)

As the table shows, the predominant method of surgical treatment of genital prolapse in women of reproductive age is a front and rear-Colpe perineorrhaphy. Restoration of the pelvic floor was performed in all women using their own tissues. All patients used vaginal access. All patients received general or spinal anesthesia. 70 patients made colpoperineolevatoroplastics with strengthening vesicovaginal fascia by the method of Boom, 10 - "The Manchester operation."

Our proposed technique of colpoperineolevatoroplastics strengthening of vesicovaginal fascia and sterilization by Pomeroy transvaginal access is clearly represented below.

- Stage I – bares vagina using mirrors, grab a cervix vulsella and reducing it. Making the front vaginal vault incision 2-3 cm long and penetrate into the abdominal cavity.
- Stage II – using pipe hook Ramathibodi grab the fallopian tube and reducing it in the vagina. Examining Division ampullar and fimbriae, we see that relegated pipe and choose avascular area.
- Stage III – in the avascular portion of the pipe creating a loop of 1-2 cm, impose a stranglehold free chromic catgut (simple O-shaped ligature) around the pipe and tighten a square knot. Loop tube is cut off, holding the ligature stretched. Inspect the stump tubes for the absence of bleeding, cut the ligature 1 sm from the tube and immerse the tube into the peritoneal cavity. Perform the same procedure on the other side of the wound and sutured anterior vaginal vault continuous catgut suture.
- Stage IV – cervix send down to the entrance of the vagina, in the midline, at some distance from the outer 1.5-2 cm opening of the urethra and toward the cervical os before reaching the border of cervical and vaginal vault, cut the vaginal wall to be loose layer of fiber. Blunt and sharp by exfoliate vaginal wall from the underlying fascia gallbladder. Separation area depends on the flap of the vaginal wall, which will be deleted as redundant.
- Stage V – purse-string catgut suture connect midline perivesical tissue, piercing the fascia and muscle layer, thereby provided "strengthening" of the bladder and hemostasis simultaneously.
- Stage VI – remove redundant tissue of the vaginal wall, the wound edges combine continuous catgut suture. Evaluation of hemostasis, removal of bullet forceps.
- Stage VII – define the boundaries of the triangular flap removed posterior vaginal wall with clamps Kocher two clips at the outer corners of the triangle imposed on the lower sections of the labia minora, above the boundaries of posterior commissure, at the level where the future will be re-formed back spike. The vertex of the triangle is located to the rear vaginal wall along the midline. Reducing bottom clips together, define the width of the resulting postoperative vaginal entrance.
- Stage VIII – stretching the clamps base of a triangle with a scalpel make a thin cut along the junction of the vaginal mucosa and perineal skin. Impose on the resulting flaps clips, stretch injury, and penetrate into the rectovaginal tissue and blunt and sharp separation through the vaginal wall of the rectum. The flap is cut off with scissors, starting from the top corner, then moving to the side corners.
- Stage IX – continuous catgut suture to sew up the wound resulting from its upper corner, connecting only the edges of the mucosa. After a few – 4-5 - pass the end of the thread stitches with needle holder assistant and proceed to levatoroplastics.
- Stage X – levatoroplastics performed in two ways, depending on the muscle. If at a palpation determined that the leg muscles are not broken, they were isolated from the fascia. If at a palpation the abdomen muscles, lifting the anus, poorly defined, the remaining parts of the muscle were ligated together with the fascia covering. In the first case from the vaginal wound over the abdomen muscles (determined by palpation) cut tissue and fascia. Found on both sides of the levator under them carried a thick ligature and pulled up into the wound of the vagina, while freeing them from the fascia prerectal parts into which imposed tightening 2-3 main seam. In the second case, not separating the muscles using steep thick needle, a first summing it with one hand muscle, gouged and grasped from the other side arm. At the time of the needle under the thumb muscles were pushed posteriorly intestine.
- Stage XI – continued the connection of edges of the vaginal wound continuous catgut sutures to the boundary of the skin. Passing to perineal muscles and suturing them.
- Stage XII – suturing perineal code by Dyutsman. As a control, to 30 patients were held DCA in the first stage, before the vaginal surgery, according to the standard technique of minilaparotomy.

Comparative results of both operations are presented in Figure 3.

The marked tendency towards improving the quality of sexual life, tells about the positive impact of elimination of genital prolapse with simultaneous DCA on the quality of life of women.

Conclusion

1. Optimization of surgical treatment with both transvaginal DCA in women of reproductive age with descent and prolapse of the vaginal walls, allows not only to eliminate this pathology, but also to provide the patient a constant and reliable method of contraception
2. DCA produced by vaginal access requires more skill of the surgeon, but significantly reduces the duration of surgery, blood loss, the number of intra-and postoperative complications.
3. For women with pelvic organ prolapse the most effective way of contraception is transvaginal tubal ligation. The effectiveness of the method was 100%.
4. We recommend to carry out transvaginal tubal ligation with Ramathibodi hook by the method of Pomeroy.

Figure 3: Comparison of DCA in women with simultaneous with strengthening Colpoperineoleva toroplastics vesicovaginal fascia produced vaginal and transabdominal access

Indicator	The Core Group (n = 20)	Control group (n = 50)	
Duration of operation	58,3 ± 2,1	94,2 ± 5,3	P<0,01
Hemorrhage	220,4 ± 15,4	235,1 ± 10,7	p>0,5
Intraoperative complications:	–	1 (5%)	P<0,01
Bladder injury, bleeding	1 (2%)	1 (5%)	
Postoperative complications:			
gapping	2 (4%)	1 (5%)	
temperature rise	–	3 (15%)	P<0,01
Exacerbation of chronic cystitis	–	2 (10%)	
The average number of bed-days	4.6 ± 1,1	7,8 ± 1,6	P<0,01
Long-term results (1 year after surgery)			
Recurrence of prolapse	–	–	–
Pregnancy	–	–	–
(efficiency DCA)			
Satisfaction with sexual life	46 (92%)	19 (95%)	P>0,5
Pain during intercourse	–	–	–
Bladder control during sexual intercourse	48 (96%)	18 (90%)	P>0,5
Rejection of sexuality for fear of unwanted pregnancy	–	–	–

Source: Negmadzhanov & Nasimova (2013, 2014)

5. The research on Women's Health in the postoperative period showed that the removal of genital prolapse with simultaneous DCA has a positive effect on the quality of women's lives.

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