

Treatment of the Prolapse of a Neovagina after Sigmoidal Colpopoiesis

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Abstract Neovaginal prolapse after sigmoidal colpopoiesis is almost never reported in the literature; one study reported a prolapse rate of 2.3%. Currently, the recommended treatment for prolapse of the neovaginal mucosa is surgical excision of excess tissue. In case of prolapse of the fornix or severe prolapse of the mucous membrane, fixation to the sacrospinous ligament, promontopexy and suspension of the neovagina from the Cooper's ligament are suggested. Djordjeevich et al. reported in their series of studies that the incidence of prolapse was 8.1% [1]. Overall, some data indicate that the incidence of neovaginal prolapse is approximately 2.3% [2,3].

Keywords Vaginoplasty, Mayer-Rokitansky-Küstner syndrome, Sigmoidal colpopoiesis, Neovaginal prolapse

1. Introduction

Currently, the recommended treatment for prolapse of the neovaginal mucosa is surgical excision of excess tissue. In case of prolapse of the fornix or severe prolapse of the mucous membrane, fixation to the sacrospinous ligament, promontopexy and suspension of the neovagina from the Cooper's ligament are suggested. Djordjeevich et al. reported in their series of studies that the incidence of prolapse was 8.1% [1]. Overall, some data indicate that the incidence of neovaginal prolapse is approximately 2.3% [2,3]. The article presents three clinical cases describing a method of treating prolapse by suspending the neovagina from the Cooper's ligament using an abdominal approach. In one case, there was a recurrence of prolapse, sacrovaginopexy was performed [12].

Scientists from Italy conducted a historic cohort study of 62 patients who underwent vaginoplasty from the sigmoid colon over 25 years. Fifty-eight (93.5%) patients were diagnosed with SMRK and four (6.5%) underwent surgery for malignant ZEO tumors. Postoperative complications requiring additional surgery were required in 3 (4.8%) patients, of which 1 (1.6%) had neovaginal prolapse [5].

A study of 8 cases with SMRK was conducted in India. All patients underwent sigmoid vaginoplasty under general anesthesia. The age range was 12-17 years (average 14.4 years). All patients presented with amenorrhea. The preoperative examination included physical examination, karyotyping, abdominal and pelvic ultrasound, and

endocrinological and psychological examinations. The total duration of the study was 7 years (2002-2008). Two patients had constipation, which was treated conservatively. In one patient, wound healing was secondary intention in the anterior abdominal wall of the abdominal cavity. One patient had a prolapse of the neovaginal mucosa, which required mucosal excision [10].

Also, scientists from India in the city of Vellur studied the medical histories of patients who underwent intestinal vaginoplasty in 55 patients from January 2004 to May 2014 for various anomalies of the genital organs, patients with SMRK accounted for 20 (36%). Five patients had neovaginal mucosal prolapse, requiring mucosal excision in 3 patients and expectant management in 2 patients. Two patients had severe stenosis requiring excision of the neovagina [10,11].

2. Materials and Research Methods

The study was carried out in the gynecological department of the 3rd maternity complex in Samarkand for the period 2010-2020. The age range of the studied women was from 17 to 35 years old. As the main therapeutic technique, all women underwent surgical treatment, depending on the degree of neovaginal prolapse.

3. Results

So, out of 28 examined patients, 22 (78.6%) had predominantly prolapse of the neovaginal mucosa, 6 (21.4%) had prolapse of the neovaginal fornix. Sigmoidal colpopoiesis was performed in patients with Mayer-Rokitansky-Küstner syndrome (SMRK) in 26 (92.9%)

cases and with vaginal aplasia with a functioning uterus in 2 (7.1%) cases. Most often, patients noted discomfort in the genital area or the presence of a foreign body in the perineal region in 18 (100%) cases, a feeling of heaviness in the lower abdomen in 12 (42.9%) cases, dyspareunia in 14 (50%), and a combination of these complaints 14 (50%) cases. In the examined patients, the duration of the disease ranged from months to several years. In addition to prolapse of the artificial vagina, various concomitant gynecological diseases were identified in 7 (25%) cases in the examined women. In the structure of gynecological pathology, the observed patients revealed: uterine fibroids in 2 (7.1%), endometriotic cyst in 1 (3.5%), follicular ovarian cyst in 1 (3.5%), polycystic ovary in 3 (10, 7%). Also, when analyzing the extragenital pathology of the examined patients, we revealed varicose veins of the lower extremities in 4 (14.3%) patients, an umbilical hernia in 1 (3.5%) patient, chronic bronchitis in 1 (3.5%) patient, gastrointestinal disease. -intestinal tract in 3 (10.7%) patients. Thus, with prolapse of the neovaginal mucosa, which was detected in 22 (78.6%), excess tissue was excised, and with prolapse of the neovaginal fornix, in 6 (21.4%), promontopexy was performed by abdominal access. There were no postoperative complications.

4. Discussion

Several surgical procedures have been described in the literature for treating vaginal fornix prolapse by vaginal or abdominal access. The goal of each surgical intervention is to correct the anatomical defect, restore sexual function, and improve the patient's quality of life. The treatment of this pathology has not yet been standardized, but some authors have already described the role of laparoscopic surgery in the treatment of this complication [3,4]. Laparoscopic sacral promontory fixation (promontofixation) has been used to repair pelvic organ prolapse with good long-term results, low recurrence and morbidity rates, and good postoperative quality of life. According to a Cochrane review [4], abdominal promontopexy is associated with a lower rate of recurrence of fornix prolapse and dyspareunia compared with vaginal sacrospinous colpopexy. There are limited data on the optimal management strategy for recurrent vault prolapse. Current data indicate that fixation of the sacrospinous ligament and promontopexy in such cases give good results [14].

T. Hensl (1998) studied the medical history of 31 patients from 1980 to 1996, aged 1 to 20 years, who underwent vaginoplasty. Of these, 20 patients with SMRK; Vaginoplasty was performed from the sigmoid colon in 20, the ileum in 8 and the cecum in 5. In 31 patients, 8 complications were revealed: stenosis of the intestinal segment in 6 and neovaginal prolapse in 1 (eliminated by retroperitoneal fixation) [13].

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vaginoplasty in 55 patients from January 2004 to May 2014 for various anomalies of the genital organs, patients with SMRK accounted for 20 (36%). Five patients had neovaginal mucosal prolapse, requiring mucosal excision in 3 patients and expectant management in 2 patients. Two patients had severe stenosis requiring excision of the neovagina [10,11].

Interesting data were provided by Carolyn W. Swenson (2014), a 56-year-old female patient with MRCC syndrome (karyotype 46, XX), at the age of 17, sigmoid vaginoplasty was performed. During this time, she underwent surgical correction 4 times for recurrent neovaginal prolapse, three of which were in the first 16 months after her first operation. For the first time, a diagnostic laparotomy was performed with suturing of the neovagina to the round ligament of the uterus on both sides and the utero-ovarian ligament; the second procedure is vaginal excision of excess neovaginal tissue; the third is diagnostic laparotomy of the abdominal-sacral colpopexy using autologous fascia of the rectus abdominis muscle and, finally, the fourth is vaginal plasty with complete resection of the sigmoid neovagina [6].

W Kondo et al (2012) conducted a literature review in the MEDLINE database from 1978 to 2011 and concluded that sacropexy is the best option for treating neovaginal sigmoid colon prolapse. An alternative method of treatment, they consider, is the suspension of the neovagina from the Cooper's ligament. They recommend the laparoscopic approach as the best approach [4].

In the work of Ivo Feichnel-Schaing (2021), a literature review was carried out and a clinical case of a 41-year-old woman with grade IV neovaginal prolapse was described. As the case showed, when a prolapse of the neovagina occurs after sigmoidal colpopoiesis, it is necessary to take into account several difficult aspects. First of all, the length of the neovagina, the need to preserve the vascular pedicle, an interdisciplinary approach and highly qualified surgeons owning using the procedure [7].

A scientist from Japan (2021) describe a clinical case of the use of laparoscopic sacrocolpopexy (LSC) in a 59-year-old woman with a history of sigmoid vaginoplasty, which was performed for grade IV sigmoid stump prolapse. This clinical case demonstrates the possibility of using LSC as a surgical treatment for sigmoid colon stump prolapse in patients with SMRK [8].

Sigmoid vaginoplasty provides an aesthetically pleasing neovagina with good length, natural lubrication and eliminates the need for stenting and / or dilation. [10]

5. Conclusions

Thus, the anatomy, length and width of the neovagina, as well as the needs of patients in daily life and intercourse, must be taken into account when choosing the treatment for patients with neovaginal prolapse. Well-designed studies and additional case information are needed to evaluate the results and safety of various treatments.

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