

Effectiveness Of Rectocele Treatment Strategies In Women Of Reproductive Age

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¹Development Of Research Design, Editing And Revision Of The Manuscript

²Analysis And Generalization Of Literature Data, Editing And Revision Of The Manuscript

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⁴Collection Of Literature Data, Analysis And Generalization Of Literature Data, Text Writing And Manuscript Design.

Summary

Objective. To conduct out a systematic analysis of the data available in the modern literature on the effectiveness of surgical treatment of pelvic floor failure.

Framework. The failure of the pelvic floor, namely its posterior compartment with the formation of a rectocele against the background of the lowering of the posterior vaginal wall, continues to be one of the most common gynecological diseases, large-scale discussions regarding its diagnosis and treatment persist in the scientific world. Surgical tactics are the fundamental direction for verified fascia and muscle defects, in the treatment of posterior vaginal wall prolapse with the formation of rectocele. The high frequency of occurrence, unsatisfactory anatomical and functional results of treatment, and the high prevalence of relapses led to the search for personalized management in the failure of the pelvic floor.

Conclusion. It is important to understand the fact that the quality of life of women suffering from the failure of the pelvic floor directly depends on the correct choice of surgical tactics in order to exclude possible early and late complications, pain syndrome or relapse of the disease.

Keywords. Rectocele, vaginal wall prolapse, posterior colporaphy.

Conflict of interest the authors declare that there are no possible conflicts of interest.

Introduction.

Pelvic floor failure (PFF) is a common urogenital disease affecting 41-50% of women over 40 years of age [1].

Currently, the problem of genital prolapse and associated anatomical and functional manifestations, despite the constant close attention of gynecologists, proctologists, urologists, and the resulting multidisciplinary approach, remains relevant and not fully resolved.

Rectocele (rectocele: lat. rectum - rectum; Greek. kele - protrusion, hernia, swelling) is a diverticular protrusion of the rectal wall. Rectocele is a rarely diagnosed pathology and its recognition is usually preceded by erroneous diagnoses and ineffective treatment. Therefore, doctors of all specialties, primarily gynecologists, urologists and proctologists, should remember its clinical manifestations and diagnostic criteria. Adequate and timely treatment contributes to a significant improvement in the quality of life of patients.

The purpose of this review is to consider modern surgical techniques in the correction of posterior vaginal wall prolapse with the formation of rectocele.

Modern surgical methods of correction of pelvic floor insufficiency with an emphasis on the posterior compartment.

Posterior colporectomy:

For most gynecologists and colorectal surgeons, transvaginal plastic surgery of the rectovaginal septum is the preferred option for restoring the rectocele in PFF. The incision is made on the vaginal mucosa at the level of the perineum and expands vertically to the top of the vagina. The mucous membrane is separated from the underlying fibromuscular layer of the vaginal wall in an acute and blunt way, by dissection to a fascia defect above the rectocele. Several sutures made of synthetic long-term absorbable material are applied to the rectovaginal fascia. The edges of the levators are mobilized in an acute way and sewn over the previously sutured fascia. The excess mucous membrane of the vagina is excised, and the edges are sutured with a continuous absorbable suture. Several authors emphasize the importance in the correction of the pelvic floor of the need to perform concomitant perineoplasty, due to the disposition of the muscles of the perineal body [3,4].

Some authors have recommended a new method for restoring pelvic floor architecture under manual control in order to identify and eliminate even small (hidden) muscle ruptures or ruptures in the rectovaginal septum [5]. The technique is performed similarly to traditional posterior colporectomy, but under manual control (a finger inserted into the rectum), hidden fascial and muscle defects are determined and after their verification, plication methods are started. This method depends on the operator's ability to find fascial defects, determine their boundaries and eliminate them. Detection of minor defects becomes more difficult in the upper part of the vagina, where the fibromuscular wall of the vagina is thin, and the rectovaginal septum consists mainly of a thin parietal fascia. In the lower part of the vagina, the most common place of latent weakening is actually the transverse detachment of the tendon center of the perineum from the rectovaginal septum, the re-fastening and fixation of which are necessary for the complete restoration of the pelvic floor [5].

As a potential modification to achieve a stable result, the use of a biological graft for transvaginal treatment of rectocele was **proposed**. In three studies, patients were randomized for transvaginal recovery with or without a graft using a prosthetic or biological mesh. In a prospective randomized study, Sand et al. (2016) found no differences in the frequency of rectocele recurrence 12 months after transvaginal plastic surgery with or without the use of a mesh implant (7/67 vs. 6/65, $p = 0.71$) [17]. Sung et al. (2017) were also interested in the issue of transvaginal treatment of rectocele with or without a graft and conducted a prospective randomized double-blind study. When followed up for 12 months, the authors found no differences in the frequency of anatomical insufficiency between patients who had transplants used during surgery and patients with conventional colporectomy (11.9 vs. 8.6%, $p =$

0.5) [6]. Based on these data, the use of transplants is not an effective and preferred method of treating patients with rectocele.

TransanalReplication:

Prolonged rectocele can lead to thinning of the anterior wall of the rectum and the development of excessive mucosa of the rectum. It was suggested to consider this phenomenon as a possible reason for the persistence of bowel movement symptoms among many women undergoing traditional posterior colporaphy[7]. In order to reduce the size of the rectal arch, resection of excess mucosa and strengthen the anterior wall of the rectum, several transanal approaches to the treatment of rectocele have been described. Transanal plastic surgery, the preferred approach of many colorectal surgeons, is usually performed under general anesthesia in a supine position after mechanical bowel preparation. A two-valve retractor is placed in the rectum, and the submucosal plane is infiltrated with a saline solution of adrenaline (1:200,000). In the center of the mucous membrane in the longitudinal direction, an incision is made in the shape of the letter "T" or "I". The muscles of the rectum and deeper fibromuscular tissue are sewn transversely with intermittent absorbable sutures, with care to avoid contact with the vaginal mucosa. The excess mucous membrane is excised before closing the incision, and the defect is sutured with absorbable sutures.

TransanalResection:

Based on the idea that excess tissue in the anterior wall of the rectum makes defecation difficult, the concept of transanal rectal resection as a method of treating rectocele arose. Originally described using the PPH-01 circular stapler, this technique has been adopted with great enthusiasm by some specialists, especially European surgeons. Numerous modifications of this method have been described, including using different models of staplers [8]. In general, the preliminary results look promising, but there are some serious complications, such as rectal perforation, sepsis, hematomas and rectovaginal fistula [9, 10,]. In addition, there is no consensus on which technique should be used in this or that case [11, 12].

Choosingtactics:

A small number of prospective studies, contradictory inclusion criteria and variable results make it difficult to determine the optimal approach to the treatment of rectocele. Functional outcomes, especially those associated with symptoms of acute defecation delay, are poorly documented, especially in the gynecological literature, where these symptoms are often not the main indication for recovery. In one of the largest published series on transvaginal plastic surgery, Kahn and Stanton et al. (2017) evaluated the results of 244 patients who underwent posterior colporaphy, 140 of whom were under medical supervision for an average of 42.5 months. Researchers reported a complete cure of rectocele among 76% of patients and an overall improvement of the symptoms of prolapse. However, after their operations, symptoms associated with constipation, incomplete emptying and fecal incontinence increased [13, 14].

There are few significant comparisons of surgical techniques in the literature. Data comparing transvaginal and transanal rectocele are also unreliable. A recent Cochrane review of surgical treatment of pelvic organ prolapse among women revealed only two randomized trials involving 87 patients, based on the analysis of transvaginal and transanal rectocele [18]. The report found no significant difference in the recurrence rate between the two approaches (2 out of 39 transvaginal versus 7 out of 48 transanal;

relative risk: 0.32, 95% confidence interval: 0.07-1.34). There is no reliable comparison of functional results between the 2 approaches [15,16,17].

Conclusion.

It is important to understand the fact that the quality of life of women suffering from PFF directly depends on the correct choice of surgical tactics in order to exclude possible early and late complications, pain syndrome or relapse of the disease.

A promising direction is a new approach in surgical treatment, which consists in personifying the surgical treatment of pelvic floor failure.

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