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RESEARCH ARTICLE

CONSTIPATION SYMPTOMS IN RECTOCELE REPAIR WITH AND WITHOUT MESHES

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ABSTRACT

Introduction: Rectocele can be defined as the herniation of the front wall of rectum into the posterior of vaginal wall. It has been reported to occur quite often in female patients. Rectocele definition remains inadequate and the success of its treatment is still not satisfactory. **Materials and Methods:** Patients aged 45-75 years who had a rectocele operation between 2010 and 2017 were included in the study. Patients those who had surgery at least one year ago were included in the study. These patients were invited to outpatient clinics to have their vaginal examinations performed and all symptoms of the patients were recorded. **Results:** Presence of constipation were found 25.3% of the patients with rectocele. This rate went down to 8.5% after their rectocele repairs and further to 6.5% in those whose repairs involved meshes. **Conclusion:** In this study it was observed that rectocele repairs resulted in marked improvements in constipation symptoms whether they involved meshes or not. Although constipation is multifactorial and constipation diagnosis involves a combination of various criterias, the main theme of this study was that this symptom was one of the top complaints when presenting to clinics and the symptoms significantly decreased during the treatment process.

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INTRODUCTION

Rectocele is defined as the herniation of the posterior wall of the rectum into the posterior vagina as a full layer. Rectocele is the most frequent cause of obstructive type of defecation and is quite widespread in women (Olsen, 1997). The etiological cause of rectal prolapsus has not been fully clarified yet (Olsen, 1997 and Karahasanoğlu , 2007). Many techniques have been used in rectocele surgery, but none of them could be shown to be an ideal treatment (Karahasanoğlu, 2007). Constipation has been blamed most in its etiology. It may be accompanied by deep rectovesical/rectovaginal or douglas pouch, elongate sigmoid colon, weak internal sphincter and amorphous anus, and pelvic floor defect. Many causes have been enumerated including vertical configuration of the pelvis and sacrum, and lack or laxity of the ligaments between the rectum and sacrum particularly in newborns and children, comorbid neurological diseases, past surgical interventions, parasitic diseases, chronic cough, and malnutrition (Şen, 2003). There is still no consensus about more effective treatment of rectovaginal septum (Segal, 2002 and Zbar, 2003).

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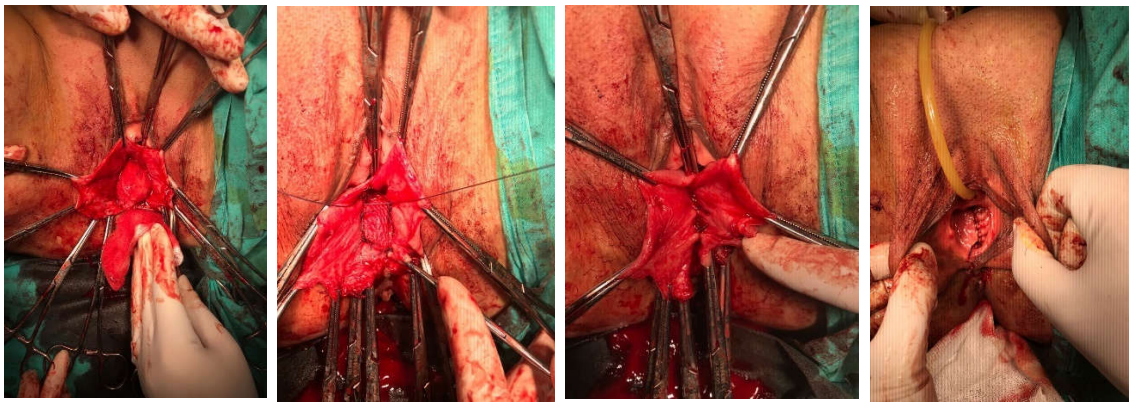
Although a repair of rectocele eliminates the feeling of vaginal fullness and discomfort, it is thought to fail providing any benefit for sexual dysfunction and the feeling of inadequate elimination in constipation (Kahn, 1997). The purpose of this study is to investigate the coexistence of isolated rectocele cases with constipation and to compare the symptomatic and physiological improvements obtained in fascial repairs and repairs using meshes in the treatment of rectocele.

MATERIALS AND METHODS

The study included 400 patients aged between 45 and 75 years who had a cystorectocele or rectocele operation between 2010 and 2017. Patients those who had surgery at least one year ago were included in the study. The patients were divided into two groups, those who had repairs with meshes and those whose repairs did not involve meshes. The meshes used in those who had repairs with meshes had their surface neighboring the rectum made of absorbable collagen and the other surface of polyester. While diagnosing patients with constipation, the patients were asked if they had an incomplete or partial elimination despite adequate straining during defecation and how many defecations they had in a week, and they were included in the group of patients with constipation accordingly. Care was taken to find out if constipation was



Images

Table 1. Frequency Rates of Cystorectocele and Rectocele

		Frequency	Percent	ValidPercent
Valid	Rectocele	73	18,3	18,3
	Cystorectocele operation	327	81,8	81,8
	Total	400	100,0	100,0

Table 2. Frequency Rates of Constipation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	101	25,1	25,3	25,3
	No	299	74,4	74,8	100,0
	Total	400	99,5	100,0	
Missing	System	2	,5		
Total		402	100,0		

Table 3. Constipation after a Rectocele Repair

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	4,2	8,5	8,5
	No	182	45,3	91,5	100,0
	Total	199	49,5	100,0	
Missing	System	200	50,5		
Total		400	100,0		

Table 4. Constipation after Repair with Mesh

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mesh	26	5,7	6,5	6,5
	no mesh	374	82,6	93,5	100,0
	Total	400	100	100,0	

among the reasons why these patients presented to the clinic. The chronic diseases which effects intra-abdominal pressure, heights, weights, number of deliveries, ages and constipation complaints and other medical conditions were all recorded. These patients were invited to outpatient clinics to have their vaginal examinations performed. IBM-SPSS (International Business Machines-Statistical Package for the Social Sciences) was used for statistical analysis and $p<0.05$ was accepted as statistically significant.

RESULTS

18.3% of the patients were diagnosed with rectocele and 81.8% were diagnosed with cyctorectocele among 400 patients. Constipation was present in 25.3% of the entire patients. Care was taken to ensure absence of any other organ prolapsus signs other than cystorectocele or only rectocele in the patients. Constipation was continuing in 8% of the patient group that had a rectocele repair using the fascial suture technique and in 6.5% of the patients who had a rectocele repair with mesh.

No mesh erosion was found in any of the patients for whom meshes were used. Improvements were seen in the constipation complaints of a large percentage of the patients after their rectocele repair.

DISCUSSION

Constipation may occur due to a number of reasons and is a multifactorial condition. It will not be a very realistic approach to expect the constipation symptom, which develops due to many reasons, to be eradicated only by surgical repair. However, in this study we observed that even a rectocele repair aloneled to clinical recovery in so many patients. We also observed that repairs with meshes improved constipation symptoms more effectively in more patients. It is still debatable and not clear whether rectocele causes constipation or constipation causes rectocelein the long run. An optimal treatment is still controversial considering the anatomical and physiological results of rectocele. The clinical difficulty of evidence-based treatment of rectocele has several reasons. These patients seem to have accompanying multicompartment

prolapsuses including urinary incontinence, cystocele, uterine prolapsusand enterocele. Therefore evaluating the surgical outcomes becomes even more complicated. Another obstacle in presenting a most suitable surgical treatment option is that the absence of standard and validated definitions for pelvic organ prolapsus prevents comparison of different clinical series (Bump, 1996). The prevalence of chronic constipation has been reported to be between 12 and 19% in many studies (Higgins, 2004). This study showed that coexistence of rectocele with constipation was 2 times as much and, unlike other studies, patients with isolated cystorectocele and rectocele were included in the study and any additional factors that could affect the surgical outcome were excluded. Our results showed that repairs with meshes considerably reduced the symptoms of rectocele and were effective in restoring the normal anatomy.

Compared to fascial repair, rectocele repair using meshes was found more successful in eliminating the attempt to defecate by pressing a finger from the vaginal route, producing a higher rate of patient satisfaction. These advantages of repair with mesh, some of which are specific to the polypropylene graft, are associated with statistically insignificant levels of surgical complications. Contrary to Cundiff *et al*. who alleged improvements in the constipation symptoms in more than 80% of the cases, some recent studies show rather high rates of postoperative constipation (29-50%) and feeling of inadequate elimination (30-44%) (Porter, 1999; Kenton, 1999). In our study, considerable improvements were achieved in all defined symptom scores in repair of rectocele with fascial suture. However, this rate was further increased in repairs with meshes. The patient satisfaction rate increased since both anatomic cure and physiological defecation improved in the patients. Our experience showed that the most important weak point of this surgical approach was that it could not be applied in a standard way for each patient. This form of repair assumes that all fascial defects can be reconstructed due to weakening (Porter, 1999; Kenton, 1999 and Kohli, 2003). This insufficient tissue support induced Kohli and Miklos to achieve fascial support by using a dermal allograft as a mesh instead of a repair with fascial suture and polypropylene mesh (Kohli, 2003). The unavoidable strain caused by strangulations and sutures may lead to postoperative discomfort, pain or dyspareunia (Segal, 1996). In this study we found that the rate of dyspareunia close to those previously reported. Watson has argued that with this technique, the repair of rectocele with a mesh enables a recovery targeting more causes and since the underlying pathology is corrected, constipation and the feeling of vaginal fullness and discomfort are eliminated (Watson, 1996). This method removes the limitations of tissue repair such as weakened tissue strength and reestablishes normal anatomic support without any strain.

The anatomical cure rate of 89.3% found in this study reveals the effectiveness of repair with mesh in reconstructing the rectovaginal septum. Improvements have been reported in all symptom scores and the postoperative recovery score of the improvement in the symptom of inducing defecation by pressing a finger from the vaginal route due to rectocele has been found more effective than the repair with fascial suture. The higher rate of anatomical cure and the lower rate of dyspareunia were found in comparison to repair with fascial suture were not found statistically significant. A major limitation of this study was that the patients had only a year of follow-up time. Kohli and Miklos have reported good results using dermal allograft and no graft-related complications in their repair series with graft-supported fascial suture (Kohli, 2003). We need comparative data including cost analyses to facilitate selection of materials to be used as meshes in rectocele repair. The repair of rectocele with mesh has been found to eliminate the symptom of defecation by pressing a finger from the vaginal route in patients with isolated rectocele, leading to a higher rate of patient satisfaction. The use of an appropriate mesh prevents mesh erosion in the rectal neighborhood and any traumatic effect of the mesh in the neighborhood of a thin rectovaginal wall and supports decreased rectovaginal wall strength.

Conclusion

In conclusion, even the repair of rectocele through fascial repair alone produced marked improvements in constipation symptoms and the repair with mesh further increased the rate of improvement. We believe that regardless of the reason, surgical repair of rectocele with or without mesh results in symptomatic relaxation and prevents exertion of a chronic load due to increased intra-abdominal pressure in the long-run, and by following weight loss and anti-constipation diet protocols, the benefits of these repairs will be enhanced and prolonged throughout the social life of a patient.

Abbreviation

IBM: International Business Machines
SPSS: Statistical Package for the Social Sciences

Declarations

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Authors' contributions

1. **Assist Prof. Dr Pervin Karlı:** Protocol/ project development, Data analysis, Data collection or management, Manuscript writing/editing, Data collection or management
2. **Assist Prof. Beril Gürlek:** Manuscript writing/editing

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