Functional Disorders: Rectocele

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ABSTRACT

The baseline prevalence of rectocele is not well defined as many women are asymptomatic and do not seek medical help. Gynecologists tend to perform posterior wall repairs more commonly than colorectal surgeons because they also address patients with vaginal symptoms in addition to those with defecatory dysfunction. Overall, surgical correction success rates for rectocele correction are quite high when using a vaginal approach. Vaginal dissection, as opposed to transrectal or transperineal approaches, results in better visualization and access to the endopelvic fascia and levator musculature, allowing for more firm anatomic correction. In addition, the maintenance of rectal mucosal integrity may reduce the risk of postoperative complications such as infection and fistula formation. With the rapidly growing popularity of synthetic and biologic implant kits in the field of pelvic reconstruction, outcomes data reporting is increasing and allowing surgeons to better understand the effect of various surgical techniques on vaginal, sexual, and defecatory symptoms.

KEYWORDS: Rectocele, posterior colporrhaphy, site-specific defect rectocele repair, dyspareunia, defecation disorders

Objectives: At the end of this article, the reader should: (1) be familiar with the anatomy of posterior vaginal compartment and its associated supporting structures; (2) understand the different surgical approaches to rectocele repair; and (3) recognize the advantages and disadvantages of one approach over the other.

Over the past decade, women have begun to be better educated about the fact that pelvic organ prolapse can result from a defect in any of the structures contributing to vaginal wall support. As such, a patient may recognize a rectocele as a symptomatic vaginal bulge that may be associated with obstructive defecatory disturbance and, in fact, represents a herniation of the rectum into the posterior vaginal wall.

SYMPTOMS

Rectoceles are often unrecognized; however, when symptomatic, their functional impact can be very limiting to

women in their activities of daily living and recreation. They can present with a variety of complaints such as obstructive defecation, looseness with intercourse, and more commonly, perineal pressure. Bulging in the posterior vaginal wall will produce symptoms of pressure and difficulty with defecation. This mass effect is usually worse at the end of the day especially in patients participating in activities requiring long periods of standing. Classically, women will report a need to “splint” or digitally reduce the vaginal bulge to evacuate their bowels. However, individual variation comes into play as it has been demonstrated that the correlation between degree of prolapse and symptomatology is not always a direct one.^{1,2}

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Many gynecologists do not have a clear understanding of symptoms of defecatory dysfunction. Many women will seek help for chronic constipation or any change in their bowel habits. Thus, the need for clinicians to differentiate between pelvic floor motility disorders and obstructive conditions is crucial, as the former will often respond only to biofeedback therapy or dietary modifications. Performing surgery on such a patient will inevitably result in persistence of abnormal defecation postsurgically, which, in turn, may be responsible for the high rectocele recurrence rate.³

An enlarging rectocele can also lead to further separation of the levator muscles, contributing to an increase in vaginal caliber.⁴ Women with increasing degrees of prolapse develop progressive enlargement of the genital hiatus, often leading to sexual dysfunction.⁵ These patients experience vaginal looseness and decreased sensation during intercourse. Coexistent damage to the innervation of the pelvic floor musculature may contribute to weakening of the levator muscles and perineal descent. A large rectocele often may extend beyond the hymenal ring and once exteriorized, the patient is at risk for vaginal mucosal complications such as erosion and ulceration.

RISK FACTORS

Parity, or more specifically, the process of childbirth remains the most significant risk factor for any form of pelvic organ prolapse. It has been proposed that vaginal support defects are largely to the result of denervation injuries due to overstretching or compression of the pudendal nerve. Conceptually, this results from any protraction disorder of labor, such as an abnormal descent of the fetal head, particularly in the occiput posterior presentation. Additionally, the performance of instrumental deliveries (i.e., forceps) increases the risk of third and fourth degree perineal lacerations as well as lateral sulcal tears. Both direct and indirect pudendal nerve injuries occur with greater frequency during these types of deliveries. However, a normal physiologic vaginal delivery of a normal-sized baby also results in potentially significant neuromuscular injury.

Conditions leading to chronic increase in abdominal pressure can also contribute to overstretching injury of the pudendal nerve. Obesity, chronic obstructive pulmonary disease (i.e., chronic cough), and chronic constipation are some of the treatable causes that clinicians should address with their patients during routine visits. Dietary modification and smoking cessation are lifestyle changes that can help decrease the incidence of rectocele in women. Nonpreventable etiologies include collagen disorders, aging, and postmenopausal status. The nonrelaxing puborectalis muscle syndrome and the ensuing chronic straining to effectuate a bowel movement also goes in line with the idea that repeated strain

on the pelvic musculature innervation will lead to posterior vaginal wall damage.

EVALUATION

Up until the 1960s, the existence of a true rectovaginal septum was still questioned by many clinicians.⁶⁻⁸ Now, most surgeons acknowledge the existence of this fascia, but there is still some debate as to how far superiorly it extends from the perineal body. In fact, traditional defects such as rectoceles, enteroceles, and perineoceles are now more commonly grouped together in the literature under the label of "posterior wall defects."

As our understanding of pelvic anatomy grows, many traditional surgical concepts demonstrate a need for revision. With regard to rectoceles, both gynecologists and colorectal surgeons have conceptually viewed them as a herniation of the rectum through rectovaginal defects such as overstretching, separations, or tears of the fascia. Furthermore, the role of an intact perineal body and the need for its anatomical restoration during rectocele repair is emerging as an important surgical concept. Most gynecologists consider repair of a rectocele to be necessary during routine pelvic reconstructive procedures, and associated with low morbidity for their patients. Colorectal surgeons focus more on restoration of functionality rather than anatomy. Most follow the premise that the presence of a rectocele alone is not sufficient indication for surgical intervention as long as the patient is capable of effective bowel movement.

Anatomy

The normal vagina is stabilized and supported on three levels as described by DeLancey.⁹ Superiorly, the vaginal apical endopelvic fascia is attached to the cardinal-uterosacral ligament complex (level I). Laterally, the endopelvic fascia connects to the arcus tendineus fasciae pelvis (level II), with the lateral posterior vagina attaching to the fascia overlying the levator ani muscles. Inferiorly, the lower posterior vagina attaches to the perineal body (level III) lying between the urogenital and anal triangles of the perineum. It is a triangular, fibromuscular structure where the bulbocavernosus, the superficial transverse perineii muscles, and the superficial part of the external anal sphincter meet. The cervix (or vaginal cuff in the hysterectomized woman) is considered to be the upper attachment site and the perineal body the inferior point of fixation of the rectovaginal septum (Fig. 1). Some clinicians still believe that this fascia can only be found from the perineal body up to the midvagina level where it changes its axis of orientation. The importance of this marked difference becomes evident in the various surgical approaches to rectocele repair.

Figure 1 Schematic representation of the rectovaginal septum including its attachment to the vaginal apex superiorly and perineal body inferiorly. (Reprinted with permission of Cleveland Clinic Florida, Weston, FL. Copyright © 2002.)

The normal posterior vagina is lined by squamous epithelium that overlies the lamina propria, a layer of loose connective tissue. Subsequently, a fibromuscular layer of tissue composed of smooth muscle, collagen, and elastin known as the rectovaginal fascia underlies the said lamina propria. Conceptually, it can be viewed as an extension of the endopelvic fascia that surrounds and supports the pelvic organs, and contains blood vessels, lymphatics, and nerves that supply and innervate the pelvic organs.

Enteroceles and rectoceles herniate into the vaginal lumen through tears, compromising the integrity of the rectovaginal fascia. Patients may present with lateral, midline, or high transverse fascial defects. The levator plate extends from the pubic bone to the sacrum/coccyx and provides support for the change in vaginal axis from vertical to horizontal along the midvagina. A rectocele will typically develop at, or below, the levator plate, along the vertical vagina (Fig. 2). Trauma from vaginal childbirth commonly leads to perineal lacerations and weakening of bulbocavernous and transverse perineal muscles, which represent another site for rectoceles to emerge (Fig. 3).

Physical Exam

A thorough physical exam helps the surgeon plan his or her surgical approach. Typically, the patient with a symptomatic enterocele, rectocele, or perineocele will be identified on physical exam by a posterior vaginal wall bulge. An enterocele usually manifests itself as a herniation at the superior posterior vaginal wall specifically between the vaginal apex and the levator plate. It can lead to vaginal vault prolapse by expanding and

weakening the apical support. As stated above, when dealing with a rectocele, the bulge extends from the edge of the levator plate to the perineal skin, as a reduction in the integrity of the perineal body. A rectocele is thus primarily a defect in perineal body support of the anterior rectum. An existing isolated rectocele may expand inferiorly leading to overdistension of the perineal body. It can be identified on digital rectal examination as an absence of fibromuscular tissue in the perineal body. Given that these specific defects may exist simultaneously, it is imperative to include a rectal exam during the physical evaluation, as each may not be evident on vaginal examination alone.

Additional factors that should be evaluated during the physical exam include vaginal mucosal thickness, status of estrogenation as well as associated pelvic support defects such as vaginal vault prolapse, cystocele, and pelvic neuromuscular function.

All pelvic floor anatomic defects should be repaired during a reconstructive surgical procedure because untreated small tears of the anterior and apical vagina may enlarge after repair of the posterior vaginal wall. Thus, preoperative identification of specific individual defects is crucial. Levator contraction strength and tone are important factors in enhancing the long-term success rate of pelvic reconstructive surgery. Regular Kegel exercises should be routinely recommended following pelvic reconstructive procedures. Biofeedback therapy may be necessary to instruct patients how to adequately isolate and contract their pelvic floor muscles. Finally, poorly estrogenized vaginal mucosa should be treated with local estrogen prior to surgical therapy.

Figure 2 Lateral view of pelvis. Rectoceles typically develop between the levator plate and the perineal body due to weakness of the rectovaginal septum endopelvic fascia. (Reprinted with permission of Cleveland Clinic Florida, Weston, FL. Copyright © 2002.)

Imaging

Radiographic studies are not always indicated, as differentiation between enterocele and rectocele components of posterior vaginal wall prolapse can be typically achieved on a clinical or intraoperative basis. Although 80% of colorectal surgeons use defecography, only 6% of gynecologists consider it as part of their preoperative evaluation.^{10,11} It is unclear at this time whether surgical therapy outcomes are negatively impacted by the lack of preoperative evaluation beyond a history and physical examination. Occasionally, there is discordance between a patient's symptoms and the findings on

bimanual exam. In such a case, the addition of radiological testing may be necessary to tailor the patient's course of therapy. However, gynecologic surgeons have not adopted some of the imaging techniques utilized routinely by colorectal surgeons such as MRI and defecating proctography in their evaluation of rectoceles. The preoperative evaluation still is mostly restricted simply to an attentive bimanual and rectal exam. Altman et al demonstrated that there was a poor correlation between physical examination, defecography, and actual severity and prevalence of dysfunctional bowel symptoms.²

Figure 3 Fascial tears of the rectovaginal septum can occur superiorly or inferiorly at sites of attachment to a central tendon. (Reprinted with permission of Cleveland Clinic Florida, Weston, FL. Copyright © 2002.)

Clinical Grading

Over the past decade, there has been a significant increase in the rigor with which studies and articles are scrutinized for publication in the medical literature. Various classification schemes are used to quantify and describe pelvic organ prolapse (POP). The use of POP-Q system has gained popularity lately due to its reproducibility between clinicians and the fact that it is more descriptive in identifying specific vaginal sites of prolapse. Discrete points and their displacement are measured, rather than the actual prolapsing structure. With regard to rectoceles, two points along the posterior vaginal wall are identified (Ap: 3 cm proximal to the hymen and Bp: the most dependent part), and their distances from the hymeneal ring are measured in centimeters with maximum Valsalva effort. In contrast, the traditional Baden-Walker system uses the midvaginal plane as a landmark and anatomic defects are graded from 0–4. Grade 0 is normal while a grade 4 extends beyond the hymen. This traditional approach has more of a surgical focus in that it allows the surgeon to support the vault during the exam and describe the actual organ herniating through the rectovaginal fascia.

SURGICAL MANAGEMENT OF RECTOCELES

Gynecologic indications for rectocele repair extend beyond the presence of a symptomatic, nonemptying rectocele, including obstructive defecation symptoms, lower pelvic pressure and heaviness, prolapse of the posterior vaginal wall, and pelvic relaxation with enlarged vaginal hiatus. In a recent survey, 100% of gynecologists would repair a rectocele in the absence of gastrointestinal symptoms, whereas only 6% of colorectal surgeons would repair them.^{10,11} Gynecologic goals in the surgical repair of rectocele include:

1. Endopelvic fascial integrity from apex to perineum
2. Levator plate integrity
3. Anterior rectal wall support
4. Normal vaginal caliber and length
5. Integrity of perineal body

Not only do surgical goals of rectocele repair differ, but procedures also vary. Although less than half of colorectal surgeons approach a rectocele repair vaginally, 95 to 100% of gynecologists repair rectoceles prefer this method.^{10,11} Indeed, it allows for correction of vaginal as well as rectal symptomatic dysfunction, while maintaining the integrity of the rectal mucosa.

Posterior Colporrhaphy Technique

Posterior colporrhaphy is commonly performed in conjunction with a perineoplasty to address a rectocele or

Figure 4 Surgical dissection is carried to the lateral vaginal sulcus to identify the fascia, which will be plicated for correction of posterior vaginal wall weakness.

relaxed perineum and widened genital hiatus. Preoperatively, the severity of the rectocele is assessed, as well as the desired final vaginal caliber. Allis clamps are placed on the inner labia minora/hymen remnants bilaterally and then approximated in the midline. The resultant vagina should loosely admit two to three fingers. A triangular incision over the perineal body is made between the Allis clamps, and sharp dissection is then performed to separate the posterior vaginal epithelium from the underlying rectovaginal fascia. A midline incision is made along the length of the vagina to a site above the superior edge of the rectocele.

The dissection is carried laterally to the lateral vaginal sulcus and medial margins of the puborectalis muscles (Fig. 4). The rectovaginal fascia with or without the underlying levator ani muscles is then plicated with interrupted sutures while depressing the anterior rectal wall (Fig. 5). Typically, absorbable sutures are placed along the length of the rectocele until plication to the level of the perineal body is complete. Excess vaginal

Figure 5 Multiple interrupted sutures are used to approximate the endopelvic fascia overlying the levator muscles in the midline.

mucosa is carefully trimmed and then reapproximated. Plication of the fibromuscular layer adjacent to the perineal skin to normalize the vaginal hiatus represents a concomitant perineoplasty and provides enhanced support to the corrected rectocele.

Site-Specific Fascial Defect Repair Technique

Discrete tears or breaks in the rectovaginal fascia or rectovaginal septum have been described and may contribute to the formation of rectoceles (Fig. 3).⁶ The intent of the site-specific fascial defect repair of rectoceles is to identify the fascial tears and reapproximate the edges. The surgical dissection is similar to the traditional posterior colporrhaphy whereby the vaginal mucosa is dissected off the underlying rectovaginal fascia to the lateral border of the levator muscles. Instead of plicating the fascia and levator muscles in the midline, however, the fascial tears are identified and repaired with interrupted sutures. Richardson describes pushing anteriorly with a finger in the rectum to identify areas of rectal muscularis that are not covered by the rectovaginal septum.⁶ The operator can then locate fascial defects, identify fascial margins, and reapproximate them. However, this technique is somewhat limited in its dependency on the operator's ability to accurately identify and correct each tear and on the assumption that the rectovaginal septum is strong everywhere else, but the location of the defects. Based on recent intraoperative assessment trials,¹² we have determined that most fascial defects are apical, with separation of the fascia from the vaginal cuff. Thus, after careful dissection, the fascial edge can be reattached superiorly to the cervix or cuff usually with three permanent sutures. A perineoplasty is then performed as described above.

Transperineal Repair Technique

The transperineal approach is more commonly used by colorectal surgeons. A transverse incision is made across the bulbocavernosus and transverse perineal muscles. The plane between the external anal sphincter and vaginal mucosa is entered and dissected superiorly up to the posterior cul-de-sac. Care must be taken not to enter the Pouch of Douglas. This technique usually requires the use of mesh over the whole length of the dissection. Plication of the levator muscles and closure of the vaginal mucosa then follows as described above in the traditional posterior colporrhaphy repair.

Transanal Repair Technique

Colorectal surgeons commonly approach rectocele repairs primarily through the anal canal. Initial reports described the procedure in the lithotomy position.¹³ Various techniques are described and several limitations can influence the surgeon's approach. Indeed, high

rectoceles make for a difficult transanal repair and subsequent rates of anal incontinence can be increased due to excessive dilation for exposure.^{14,15} The rectal mucosa is mobilized and pulled outward until taut. An inverted T-shaped incision is made over the rectal mucosa. The horizontal portion usually lies above the dentate line and the vertical line extends to the superior edge of the rectocele. A mucosal flap is dissected on both sides and the excess is removed. A plication of the rectovaginal fascia with absorbable sutures is then subsequently performed with care to incorporate the rectal wall. The flaps are reapproximated at the end of the procedure. The formation of scar at the suture line adds to support. Variations including for example, two vertical incisions or plication of the anterior rectal wall without any prior dissection have been reported.^{16,17}

Most recently, the stapled trans-anal rectal resection procedure (STARR) has also gained popularity among colorectal surgeons. It is indicated in patients with outlet obstruction due mostly to rectal intussusception and rectocele. After dilating the anus, the posterior rectal wall is retracted and three pursestring sutures, incorporating the mucosa, submucosa and rectal muscle wall, are placed along the anterior rectal wall, up to the edge of the rectocele. A 33-mm circular stapler is introduced and the rectal mucosa is pulled into the device. The posterior vaginal wall is checked just prior to firing the stapler so as to not include it the resection; 3.0 Vicryl sutures are used to reinforce the staple line or for hemostasis. The same procedure is repeated on the posterior rectal wall while retracting anteriorly.

Laparoscopic Rectocele Repair Technique

Laparoscopic rectocele repair involves opening the rectovaginal space and dissecting inferiorly to the perineal body. The perineal body is sutured to the rectovaginal septum and rectovaginal fascial defects are identified and closed. The advantages are reported to be better visualization, and more rapid recovery, with decreased pain and hospitalization. Disadvantages include difficulty with laparoscopic suturing, increased operating time/expense, and extended time necessary to master the laparoscopic surgical techniques.¹⁸

RESULTS OF SURGICAL REPAIRS

Posterior Colporrhaphy and Discrete Fascial Defect Repair

The posterior colporrhaphy has been the traditional approach to rectocele repair by gynecologists. Although commonly performed, it has been described as "among the most misunderstood and poorly performed" gynecologic surgeries.¹⁹ Although many authors have reported satisfactory anatomic results, conflicting effects

on bowel and sexual function postoperatively have been noted.^{20–23} Studies also have demonstrated high sexual dysfunction rates of up to 50% of women reporting dyspareunia or apareunia after posterior colporrhaphy.²⁴ The thought that this may be due to the plication of the levator ani muscles has led to greater popularity of site-specific fascial defect repair. Several authors have reported a similar anatomic cure rate with this site-specific repair, along with significant improvement in quality of life measures. Unlike the traditional posterior colporrhaphy, all these series report less postoperative dyspareunia.^{25–28}

A randomized trial comparing posterior colporrhaphy to site-specific repair with or without graft augmentation reported outcomes in favor of the traditional repair. Indeed, anatomic cure rates were 86%, 54%, and 78%, respectively, and defined as point Bp less or equal to –2 at the 1-year visit.²⁹ The proportion of functional failures was 15% overall with no significant differences between groups and rates of dyspareunia were equal.

Sand et al retrospectively identified patients who underwent surgery of posterior wall defect over a period of 48 months and reported outcomes of posterior colporrhaphy ($N=183$) versus site-specific repairs ($N=124$).³⁰ Their results demonstrated a higher anatomic recurrence rate and similar dyspareunia/bowel symptoms in patients who underwent discrete fascial tear repairs instead of the traditional posterior colporrhaphy.

In general, the trend seems to demonstrate similar anatomical outcomes, with possibly a decrease in postoperative dyspareunia, with the discrete fascial defect repair as compared with the traditional posterior colporrhaphy. Many theorize that this may be due in large part to spasms of the levator, bulbocavernosus, and transverse perineal muscles. However, the added support provided by the plication of the above muscles may help reduce the recurrence rates of rectoceles and temporary dyspareunia can be viewed as an acceptable outcome for the long-term success of the repair.

Transanal Repair

The use of stapling devices for the transanal approach is gaining popularity. The initial results from studies looking at the STARR procedure are promising. A prospective multicenter trial following 90 patients who underwent the procedure, revealed at the 1-year follow-up visit an improvement in all constipation symptoms without worsening of anal incontinence.³¹ There was no incidence of dyspareunia, 17.8% of patients had fecal urgency, and 8.7% had incontinence to flatus.

A subsequent randomized clinical trial compared STARR to the staple transanal prolapsectomy with perineal levatorplasty (STAPL). The latter procedure

differed from the former in that it involved only stapling of the anterior rectal wall and the addition of levator plication. Fifty patients, who had failed conservative management of their outlet obstruction, were randomized equally to the STARR or STAPL procedure. The second group had a higher rate of complication including postoperative pain (<0.0001), 20% of patients had dyspareunia (5/25), and 40% had delayed healing of perineal incision.³²

Rectocele operations performed transanally versus transvaginally have also been compared.³³ Complications occurred equally in the two groups of patients. In all, 54% of patients had postoperative constipation, and 34% had gas, liquid, or stool incontinence. Sexual dysfunction was reported in 22%. The only significant difference was that the patients receiving transvaginal repair had more persistent pain. Complications included infection and a rectovaginal fistula. The author warns against performing the transanal approach for enteroceles or high rectoceles, or combining it with transvaginal surgery secondary to the risk of infection. These types of complications are not seen with vaginal rectocele repairs, where the rectal mucosa is not incised or excised. Maintaining rectal mucosal integrity appears to significantly reduce infectious morbidity.

Use of Mesh

The use of synthetic and biologic prostheses for the reinforcement of pelvic organ prolapse repair has recently gained popularity among gynecologists. Synthetic polypropylene mesh is nowadays widely used for anti-incontinence surgery and vaginal wall compartment repairs. Although high success rates have been reported, erosion of the mesh has been associated with these repairs.³⁴ Autologous and allograft implants and xenograft materials, including bovine pericardium, porcine skin, and small intestinal mucosa, have also been used to reinforce the posterior and anterior vaginal walls.

The posterior compartment has recently seen a slow, but steady increase in the implantation of grafts and meshes during posterior colporrhaphy. Sand reported on 132 women undergoing either standard rectocele repair or repair reinforced with polyglactin 910 mesh (an absorbable mesh), and found no difference in recurrence rates between the two groups.³⁵ In France, De Tayrac et al laid a polypropylene mesh from the sacrospinous ligament to the perineal body to treat rectoceles. No fascial defects were repaired and no levator plication was performed. The mean follow-up period was 22.7 months; this small series of 26 patients had a 92.3% cure rate (24/26) and 1 patient had an asymptomatic stage 2 rectocele. They authors did report, however, three (12%) vaginal erosions, but no infection or fistula formation during a 2-year follow-up.³⁶ Dermal allograft has been introduced as well for

augmentation of the site-specific repair of rectoceles. Thirty women evaluated on average 12 months after graft augmentation showed an average POP-Q measurement of point Ap of 0.25 preoperatively and -2.4 postoperatively. Point Bp was reported as well, with a baseline of 0.9 and a reduction to -2.5 postgraft augmentation.³⁷ The authors reported a 93% success rate, (28/30) defined as point Ap $\geq$ -0.5 at 1 year. Dell and O'Kelley followed with a series of 35 patients using a porcine collagen matrix instead of dermal allograft.³⁸ Their results were similar with points Ap (0.3 to -2.3) and Bp (1.2 to -2.5) at 1 year. However, it is to be noted that in this study 6 patients (15%) experienced wound separation and delayed healing.

Laparoscopic Rectocele Repair

Few reports describing outcomes of laparoscopic surgery for pelvic organ prolapse exist in the literature. Lyons and Winer described the use of polyglactin mesh in laparoscopic rectocele repair in 20 patients, with 80% reporting relief of both prolapse symptoms and the need for manual assistance to defecate.³⁹ Further studies are needed to assess this surgical approach for rectocele repair.

NONSURGICAL MANAGEMENT OF RECTOCELES

In large part, rectoceles are identified during annual routine examinations or as part of evaluation of other palpable vaginal prolapse. The fact remains that not every patient will be symptomatic and surgery is not always warranted. A frank counseling session including all therapeutic alternatives often helps clearly delineate patients' wishes and a decision regarding surgical or nonsurgical management can be reached.

Dietary changes represent the most benign intervention for patients with rectocele. As stated above, most colorectal surgeons will not surgically intervene on asymptomatic patients. If a minimal rectocele is the only finding on physical exam, a gynecologist should encourage the implementation of fiber or fiber-rich food in their patient's diet.

Expectant management is also an acceptable and ethical option for asymptomatic women with a minimal rectocele (grade 1). They should be followed at their yearly exam and supporting measures such as Kegel exercises can help suppress their symptoms.

Some patients will inquire about the use of a pessary when diagnosed with a rectocele. Although more commonly used for anterior wall and vault prolapse, certain space-occupying pessaries such as the cube or the Gellhorn can help patients with mild defecatory symptoms. A balance between advantages such as reduction of vaginal bulging or need for splinting, and

disadvantages such as 20% de novo occult stress urinary incontinence must be reached when recommending this form of therapy.

DISCUSSION

Obstructive defecation symptomatology is only one of the accepted indications for surgical repair of a rectocele. Gynecologists primarily address vaginal anatomic changes when approaching patients with posterior wall defects because most do not have a clear understanding of defecatory dysfunction. Preoperative evaluation typically only includes clinical assessment gained from the history and physical exam, and gynecologists rarely depend on defecography to plan a reconstructive procedure for rectocele. Overall, surgical correction success rates are quite high when using a vaginal approach for rectocele correction. Vaginal dissection results in better visualization and access to the endopelvic fascia and levator musculature, which allows for a more firm anatomic correction. In addition, maintaining rectal mucosal integrity appears to reduce the risk of postoperative infection and fistula formation. The traditional transanal approach to rectocele repair has inherent anatomical as well as technical limitations. Indeed, the obese patient with a high rectocele can be very challenging to repair transanally. However, the recent use of a transanal stapler aims to facilitate the surgery. The use of synthetic and biologic prostheses has also gained popularity in addressing posterior wall defects. Small series with short-term follow up have shown promising preliminary results thus far. More comprehensive data collection is necessary to better understand the effect of various surgical techniques on vaginal, sexual, and defecatory symptoms.

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