

Resolution of symptoms of rectal prolapse after repair of vaginal prolapse: A report of two cases

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ABSTRACT

Pelvic organ prolapse (POP) is a very common problem that can affect any aspect of the pelvic floor. Often, vaginal and rectal prolapse occur simultaneously. Prior case reports have suggested resolution of symptoms of rectal prolapse in those with concomitant rectal and vaginal prolapse; however, the overall body of evidence is limited. We present the cases of two patients who had complete resolution of their symptoms of rectal prolapse after repair of a concomitant vaginal prolapse. Both patients underwent a traditional rectocele repair and perineoplasty, and subsequently reported complete resolution of their symptoms of rectal prolapse, which persisted at their six-month post-operative visits. The second patient ultimately canceled a previously scheduled rectopexy with colorectal surgery. Perhaps a rectocele repair with perineoplasty is limiting rectal mobility, and therefore eliminating its ability to prolapse or intussuscept and cause bothersome symptoms. We suggest that those with concomitant vaginal and rectal prolapse desiring corrective surgery first undergo a less invasive vaginal repair. Post-operative re-evaluation of the symptoms rectal prolapse might then demonstrate that a more invasive rectal prolapse repair, which may involve a colon resection and prolonged hospital stay, was not in fact needed. Further prospective and randomized study is needed to determine the long-term outcomes of concomitant rectal and vaginal prolapse in those who first undergo a vaginal repair.

1. Introduction

Pelvic organ prolapse (POP) is a very common problem that can affect any aspect of the pelvic floor. Often, vaginal and rectal prolapse occur simultaneously. Prior case reports have suggested resolution of rectal prolapse symptoms in those with concomitant rectal and vaginal prolapse; however, the body of evidence is limited [1]. We present the cases of two patients who had complete resolution of their symptoms of rectal prolapse after repair of a concomitant vaginal prolapse.

2. Case 1

A 36-year-old-woman, para 3, presented to the urogynecology office complaining of vaginal prolapse and recurrent rectal prolapse symptoms after a previous history of rectopexy. The patient had had three uncomplicated vaginal deliveries without any third- or fourth-degree perineal laceration. She denied any personal or family history of connective tissue disorders. She reported a long history of constipation with a need to splint with bowel movements (BMs). She had a previous

history of two rectal prolapse repairs, both prior to her pregnancies. The first was an uncomplicated laparoscopic sutured rectopexy with partial left colon resection at 23 years old. She later demonstrated recurrent rectal prolapse and underwent an uncomplicated robotic-assisted rectopexy with lysis of adhesions two years later (at 25 years old). Approximately 8 years later, she presented to the urogynecology office with recurrent rectal prolapse, reporting protrusion of the rectum with BMs. On physical examination, she was found to have a stage 2 uterine prolapse and rectocele. Rectal exam revealed mild weakness in the rectovaginal septum. She initially opted for nonsurgical management of the prolapse and was fitted with a pessary. After several months of relief with the pessary she developed worsening rectocele symptoms and reported increased frequency of splinting with BMs. She eventually opted to proceed with surgery to correct the uterine prolapse and the rectocele, with a plan to re-assess rectal prolapse symptoms after vaginal prolapse repair. She underwent an uncomplicated robotic-assisted supracervical hysterectomy, bilateral salpingectomy, sacrocolpopexy (SCP), posterior repair and perineoplasty. At one week and six weeks post-operatively, she reported complete resolution of symptoms of both vaginal and

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rectal prolapse. This persisted at her 5-month follow-up.

3. Case 2

A 48-year-old woman, para 2, presented to the urogynecology office with complaints of stress urinary incontinence (SUI). On exam she was noted to have a stage 2 rectocele but denied prolapse symptoms. At a subsequent visit she started to notice difficulty with defecation and incomplete BMs. She also reported a protrusion from the anus with BMs and brought in a photograph which demonstrated an approximate 5 cm rectal prolapse (Fig. 1). Urodynamic testing demonstrated evidence of SUI and the patient opted for surgical management of the prolapse and SUI.

Due to coronavirus disease 2019 (COVID-19), the patient had delayed seeking further treatment for almost a year. During that time, she consulted with colorectal surgery regarding surgical repair of the rectal prolapse. Her plan was to undergo surgery for SUI followed by a robotic-assisted rectopexy, likely with sigmoid resection. She underwent an uncomplicated mid-urethral sling, rectocele repair and perineoplasty at 49 years of age. At two weeks and six weeks post-operatively, she reported complete resolution of rectal prolapse symptoms. She ultimately canceled the scheduled rectopexy. Her most recent visit was at 6 months post-operatively, at which time she denied rectal prolapse symptoms.

4. Discussion

Rectal prolapse, or rectal procidentia, involves protrusion of some or all layers of the rectum through the anus. The incidence of rectal prolapse is 2.5 per 100,000 people and 15–30% of those with rectal prolapse also have concomitant vaginal prolapse, typically rectocele or enterocele [2]. Rectal prolapse often presents with a constellation of bowel symptoms, including incomplete evacuation of stool, altered bowel habits, abdominal discomfort, and rectal bulge or mass symptoms that require splinting [3]. These symptoms often have significant implications for quality of life. Women are at significantly higher risk of rectal prolapse with increasing age, parity, pelvic floor dysfunction, and concomitant pelvic floor defects such as rectocele, cystocele, and enterocele [4].

Surgical repair of rectal prolapse with concomitant vaginal prolapse can be completed by colorectal surgery together with urogynecology. Repair of rectal prolapse, as opposed to conservative management, is typically recommended because of potential for weakening of the anal sphincter and rectal incarceration [5]. The surgery can be performed either by an abdominal or by a perineal approach. The abdominal approach has better long-term success rates. It involves mobilization of the rectum and sigmoid colon, and often requires a sigmoid resection [6]. The perineal approach can be completed using either the Altemeier or Delorme rectosigmoidectomy [7]. The perineal approach is less invasive and thus more suitable for those who are not candidates for abdominal surgery, such as the elderly, frail patients, and those with significant comorbidities [8].

A transvaginal rectocele repair is typically performed with a posterior colporrhaphy or site-specific repair. The transvaginal repair is preferable to the transanal approach and has a lower failure rate, of 10% versus 42% [9]. A large prospective trial determined that posterior colporrhaphy was comparable to site-specific repair in regard to outcomes [10].

These two cases demonstrated successful outcomes with a traditional posterior repair and perineoplasty. These patients initially suffered from and ultimately had complete resolution of their rectal prolapse symptoms. It has been suggested that the pathophysiology of rectal prolapse is attributed to redundant large bowel with excess mobility of the rectum [2,3]. Perhaps a rectocele repair with perineoplasty is limiting rectal mobility, and therefore eliminating its ability to prolapse or intussuscept and cause bothersome symptoms.

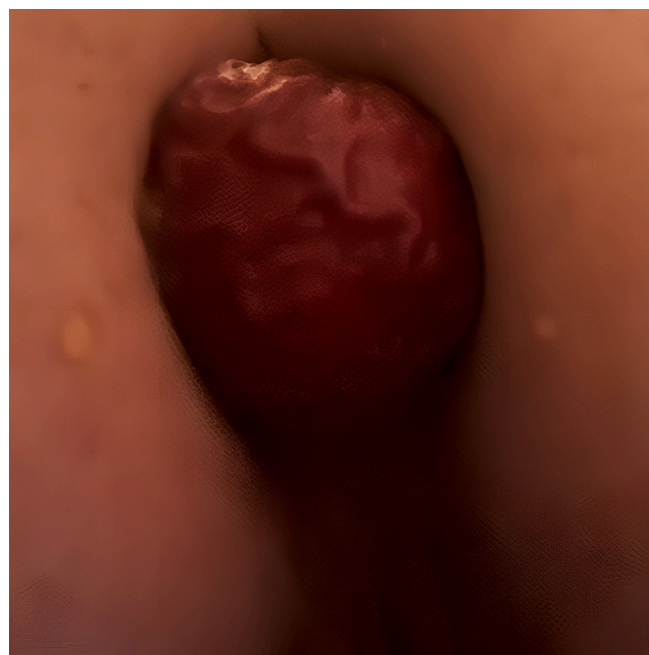


Fig. 1. Patient photograph, case 2, demonstrating an approximate 5 cm rectal prolapse.

It is also worth noting that the patient in case 1 underwent a SCP. In the setting of rectal prolapse, a ventral rectopexy with SCP can be performed [11]. Prior literature has demonstrated that when a SCP is done with a ventral rectopexy there is significant improvement in bowel symptoms and quality of life [12]. Little is known about the effect of SCP alone on rectal prolapse, as the majority of concomitant vaginal and rectal prolapse cases treated with SCP are done with a ventral rectopexy. However, for posterior compartment prolapse, SCP is known to have a high rate of success (a 12% recurrence rate) [13]. Thus, in case 1 in this report, the SCP may have contributed to improvement in the patient's rectal prolapse symptoms, though future study would be needed to confirm this finding.

The literature suggests that a combined surgery between urogynecology and colorectal teams results in good surgical outcomes [2,5]. However, consideration may be given to approaching vaginal prolapse first when concomitant rectal prolapse is present. A multidisciplinary team approach would then be important in the evaluation of rectal prolapse symptoms post-operatively. This might demonstrate that an additional rectal prolapse repair, which may require a colon resection and prolonged hospital stay, is no longer needed. Nonetheless, our findings are limited in its case series design. Ultimately, further study is needed to determine the long-term outcomes of vaginal prolapse repair in patients with the diagnosis of rectal prolapse pre-operatively.

Contributors

Gregory Vurture contributed to the conception of the case report, acquisition of data, analysis and interpretation of data, and written drafts of the article.

Nina Jacobson contributed to patient care, conception of the case report, acquisition of data, analysis and interpretation of data, written drafts of the article, and critical revision of the article for important intellectual content.

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The authors declare that they have no conflict of interest regarding the publication of this case report.

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