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Case Report

A Rare Case of Rectal Prolapse in a Patient with Crohn's Disease

Rachael Seddighzadeh[1,2], Jessica Wassef[1,2]*, and Peter Kaye[2]

[1]Hackensack Meridian Health Palisades Medical Center, Houston Methodist Hospital, USA
[2]Department of Colorectal Surgery, Englewood Hospital and Medical Center, USA

*Corresponding author
Jessica Wassef, Department of Colorectal Surgery, Englewood Hospital and Medical Center, USA

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Abstract

Background: Rectal prolapse in patients with Crohn's disease has not been documented.

Case Summary: We present a young patient with a history of well controlled Crohn's disease who presented with rectal prolapse without associated constipation. He underwent uncomplicated robotic assisted rectopexy with immediate resolution.

Conclusion: Rectal prolapse is rarely seen in patients with inflammatory bowel disease (IBD). No association currently exists in the literature today. Further studies are necessary to assess if a relationship exists in patients with IBD and rectal prolapse

INTRODUCTION

Rectal prolapse occurs when the rectum protrudes through the anus via intussusception. It most commonly affects females, with a ratio of 6:1, as well as the elderly [1-3]. Anatomic risk factors include patients with a deep pouch of Douglas, a redundant sigmoid colon, long rectum, and weakened pelvic floor. Behavioral risk factors include history of chronic straining and constipation, or history of multiple vaginal deliveries [4-8]. Symptoms include tenses, sensation of incomplete evacuation, mucus discharge or leakage. In the early phase, the protrusion of the rectum occurs only during defecation. Symptoms may grow more severe over time, as the prolapsed rectal mucosa becomes chronically inflamed, resulting in ulceration and bloody discharge. While conservative management may be attempted, symptoms of rectal prolapse often persist or worsen with time, requiring surgical intervention [9,10]. Surgical options include both abdominal and perineal approaches. Choice of operation depends on many factors, including anatomical considerations, surgical history, and the patient's overall fitness [11].

Though the etiology of inflammatory bowel disease (IBD) is not entirely known, it is thought to be due to a combination of environmental and genetic factors resulting in a deregulated immune system and imbalance of inflammatory cytokines causing tissue injury. Crohn's disease is an inflammatory bowel disease affecting any portion of the intestinal tract, with skip lesions, rectal sparing and often with anal involvement. Crohn's disease can present as an acute inflammatory process or as a chronic fibrotic process (resulting in strictures and fistulous disease) [12,13].

The incidence of rectal prolapse in a patient with inflammatory bowel disease is highly unusual, and to this writer's search, undocumented. Therefore, we present a case of a patient with Crohn's disease presenting with rectal prolapse.

CASE PRESENTATION

This is a generally healthy 42-year-old male with a history of Crohn's disease managed on Entyvio, diagnosed at age 13, who presented with rectal prolapse. His surgical history is notable for elective ileocolic resection at age 16 and subsequent neo-ileocolic resection at age 37. He endorsed a lifelong history of loose stool, without constipation. On physical exam, he was found to have a full thickness rectal prolapse with Valsalva. Last colonoscopy and sigmoidoscopy were less than a year ago, at which time was negative for any neoplasm or Crohn's exacerbation, indicating that his Crohn's disease was well controlled. As treatment for the rectal prolapse, he underwent a robotically assisted laparoscopic rectopexy with immediate correction of the rectal prolapse. The operation was uncomplicated, as was his postoperative course.

DISCUSSION

Rectal prolapse was first described on papyrus in 1500 BC, and though much has changed since then, the cause of rectal

prolapse is yet to be identified [14]. It most commonly affects elderly women, psychiatric patients, and those with chronic constipation. Men are most affected in the third or fourth decade of life. The patient described in this case is presenting at the common time frame that men present but has none of the other listed risk factors.

Inflammatory bowel disease involves chronic relapsing and remitting symptoms of the gastrointestinal tract and may eventually lead to fibrosis [12]. Patients commonly develop pelvic floor dysfunction as a "learned maladaptive behavior" due to patients experiencing common symptoms of IBD such as pain, urgency, or diarrhea [15,16]. When the pelvic floor and anal sphincter muscles do not coordinate in conjunction with each other, this may create severe dysynergistic reactions creating pelvic floor dysfunction. Despite pelvic floor dysfunction being well documented in patients with IBD, it has not been documented in presenting in this fashion [15]. Other possible reasons for pelvic dysfunction syndrome include post-inflammatory changes leading to impaired motility and overall function, tone, compliance, and impaired sphincter function [17]. Treatment of pelvic floor dysfunctions is often well managed conservatively with medication, diet modification, and biofeedback intervention [18].

CONCLUSIONS

Little research exists regarding rectal prolapse in patients with inflammatory bowel disease. In this case report, we present one such patient, a young man with Crohn's disease who developed rectal prolapse. Pelvic floor dysfunction is common in patients with IBD, but still rarely present with rectal prolapse, likely due to the significant differences in risk factors in each population. It is possible that this patient had pelvic dysfunction to incite rectal prolapse, or perhaps he has another inciting factor triggering his rectal prolapse. Further studies are necessary to assess whether or not a relationship exists in IBD patients with rectal prolapse, as to this writer's investigation, these diseases have yet to be reported together.

Author Contributions

Rachael Seddighzadeh was involved in drafting the work and reviewing it for important intellectual contact and gave final approval for this version to be published Jessica Wassef was involved in drafting and reviewing it for important intellectual content and checked for accuracy and integrity in all parts of this work. Peter Kaye was involved in the conception and design of this case study as well as reviewing it critically for important intellectual content with approval of the version to be published.

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