Case Report: Posterior Solitary Rectal Ulcer Syndrome

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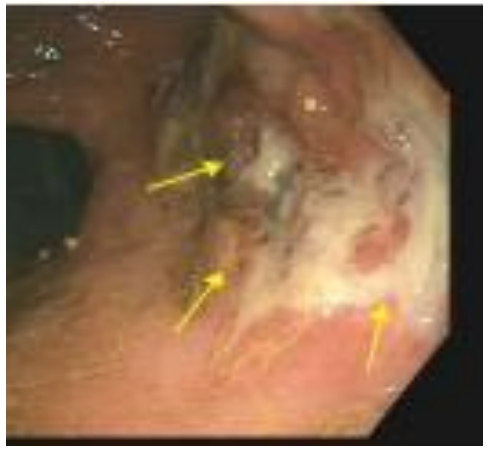
Introduction

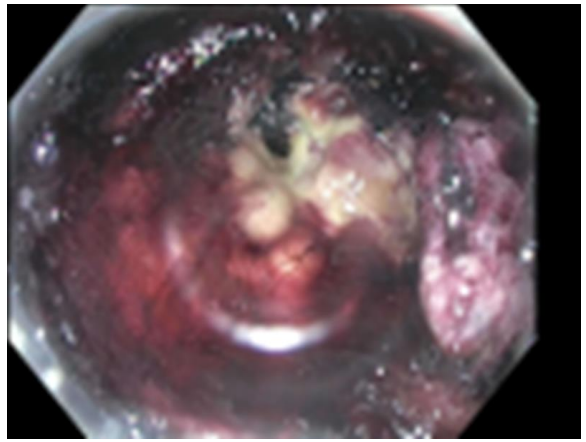
- Solitary rectal ulcer syndrome (SRUS) is a rare colorectal disorder that presents as bright red blood per rectum (BRBPR), rectal pain, straining, incomplete evacuation, and rectal prolapse [1].
- The incidence of SRUS is 1: 100,000 individuals per year. SRUS is a misnomer as it can present as multiple ulcers, hypertensive mucosa, and extensive polypoid lesions.
- Differential diagnoses include inflammatory bowel disease (IBD), ischemic colitis, pseudomembranous colitis, and malignancy. Ergo, histopathological evaluation is necessary for differentiation.
- Typically, these lesions occur on the anterior surface of the rectum given the movement of the muscles in the rectum.
- In our case, we present a patient who has a posterior SRUS which was misdiagnosed as Crohn's disease.

Methods

- 45-y.o. heterosexual male with PMH of presumed Crohn's and diverticulosis presented to ED multiple times with recurrent complaints of BRBPR & abdominal pain intermittently over 18 years.
- Imaging showed rectal wall thickening & inflammation. Patient underwent multiple sigmoidoscopies and colonoscopies showing a single ulcer in the posterior rectal wall with stigmata of bleeding. Defacogram was normal.
- Multiple clips and hemostatic therapies were applied.
- Repeatedly, biopsy results showed chronic ulceration with reactive rectal epithelium; all negative for dysplasia/malignancy and no evidence of IBD.
- Patient was treated conservatively with mesalamine enemas, steroids, and laxatives.
- Given repeated episodes of bleeding despite this, colorectal surgery performed a laparoscopic low anterior resection of the ulcer.

Results





- Surgical Post Op Diagnosis Report: Deep ulcer in the right posterior position between the first and second rectal valves. No overt evidence of malignancy. The rest of his abdominal and pelvic exploration were normal. The only abnormality noted was a rectum that seemed to be partially prolapsing anteriorly with a very exaggerated cul-de-sac for a male patient.

Discussion and Conclusion

- **The term SRUS may be a misnomer because the condition can present in different ways and only a small number of patients develop an isolated ulcer [4]. The pathogenesis behind SRUS is poorly understood but thought to be a result of rectal prolapse and rectal trauma by 2 different mechanisms:**
  - **1) Prolapsed rectal mucosa forced downward due to the pressures generated by the rectum during defecation, while opposing forces of the paradoxical contraction [3] of the puborectalis muscle tendon cause high pressures [5] within the rectum, leading to mucosal ischemia, and predisposing to ulceration.**
  - **2) Contraction of the puborectalis muscle results in shear forces on the rectal mucosa. Rectal hypersensitivity is also thought to be responsible for tenesmus and repetitive straining [6].**
- **These factors lead to repeated trauma to the rectal mucosa and subsequently venous congestion, hypoperfusion, and ischemic injury, leading to ulceration. Histopathological examination is essential for the diagnosis of SRUS, with classical features of fibrinolysis of the lamina propria, deformity of the lamina propria, and disorientation of the muscle fibers, as in this case [8].**
- **The ulcer presentation in this case is atypical because these SRUSs are usually anterior to the rectum. The choice of treatment for SRUS depends on the severity of symptoms and the presence or absence of underlying rectal prolapse [7]. Prudent medical management includes patient education, dietary changes, blistering agents, biofeedback therapy, and topical therapies including steroid enema, sulfasalazine, and 5- Aminosalicylate [7]. Surgical options for the treatment of SRUS are reserved for patients who do not improve with conservative measures and for those with rectal prolapse [7]. Procedures performed for SRUS include proctectomy, local excision, Delorme procedure, episiotomy (Altemeier procedure), and diversion.**
- **In this case, a combination of low anterior resection with lifestyle and conservative measures to prevent recurrence was used. It is possible that the noted partially prolapsing rectum with the exaggerated cul-de-sac (unusual for a male patient) could be the nidus for the ulcer location.**

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