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Case of Solitary Rectal Ulcer Presenting With Hemorrhagic Shock: Review of Literature and Case Report

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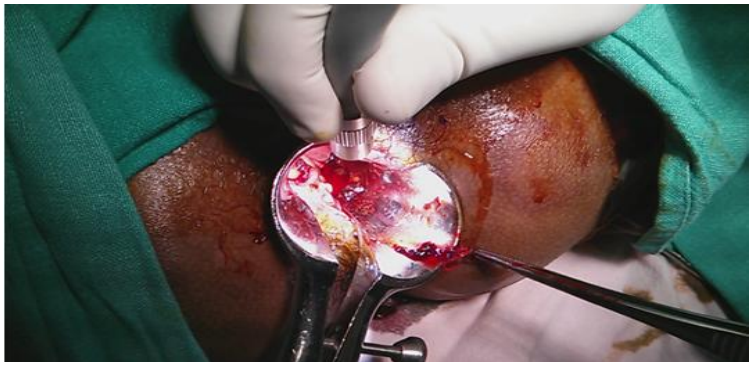
Abstract: *Solitary rectal ulcer syndrome many a times is underdiagnosed and misdiagnosed. Rarelydoes it present as life threatening hemorrhage.*
We present a lower gastro intestinal bleed which was initially indigenouslymanaged, presenting as hemorrhagicshock, subsequently turning out to be Solitary rectal ulcer syndrome.
Keywords*: Solitary rectal ulcer syndrome Hemorrhagic shock.*

I. Introduction

Solitary rectal ulcer syndrome (SRUS) is an uncommon benign disease, characterized by a combination of symptoms, clinical findings and histological abnormalities. Ulcers are only found in 40% of the patients; 20% of the patients have a solitary ulcer, and the rest of the lesions vary in shape and size, from hyperemic mucosa to broad-based polypoid. Men and women are affected equally, with a slight predominance in women.(1)Clinical features include rectal bleeding, copious mucus discharge, prolonged excessive straining, perineal and abdominal pain, feeling of incomplete defecation, constipation, and rarely, rectal prolapse. When it presents with bleeding, the amount of blood varies from a little fresh blood to severe hemorrhage that requires blood transfusion. Excessive bleeding occurs only very rarely and most often in the setting of predisposing medical conditions (2).Here we present a case of a young male with no comorbidities presenting with massive bleeding per rectum, requiring blood transfusions and emergency operative intervention along with review of literature.

II. Case Report

26 year old male patient presented with complaints of constipation and painful defecation since 2 months. After a month he noticed fresh blood being passed whiledefecating,following which he consulted an indigenous medical practitioner and was diagnosed withhemorrhoids. He underwent some proctologic procedure which was not explained to the patient. The bleeding stopped but pain persisted. Pain got aggravated after a week. Later he developed two episodes of massive bleeding per rectum following which he was admitted at a local hospital and upper GI endoscopy and colonoscopy were done findings of which were suggestive of anal polyp/thrombosed hemorrhoid with a ligature in the anal canal. He developed further episode of bleeding per rectum and was brought to our emergency department. At presentation, the patient was in shock with pulserate of 120 bpm and blood pressure of 90/60mmhg.Patient was resuscitated with blood transfusionand hemostasis achieved temporarily with anal packing. Subsequently, he was shifted to operation theatre and examination done under anesthesia. An ulcerated polypoidal lesion was found at 6 ‘o’ clock position with cotton thread ligature partially covering the base and actively bleeding lesion. Polyp was excised, ligature removed and bleeding points were cauterized. Post-operative recovery was uneventful.



III. Histology

Histopathology of the excised lesion was reported as solitary rectal ulcer.

IV. Discussion

The solitary ulcer syndrome of the rectum is not rare, but often remains unrecognized. A greater awareness of the condition will lead to more frequent diagnosis. The etiology remains unproven but the evidence would suggest that a combination of prolapse, trauma and ischemia, caused by excessive straining at stool may be important factors. The only serious complication of solitary ulcer is massive hemorrhage and this is rare[(4)]. Other clinical features include copious mucus discharge, prolonged excessive straining, perineal and abdominal pain, feeling of incomplete defecation, constipation, and rarely, rectal prolapse. However, because of the non-specificity of these symptoms, diagnosis depends upon endoscopic and histological assessments.

The cause of SRUS remains somewhat unclear, but speculation centers on chronic ischemia. The fold with the ulcer is thought to form the lead point of an intussusception into the anal canal. Chronic, repeated straining or prolapse of this lead point produces ischemia, tissue breakdown, and ulceration. Possible digital self-disimpaction may also be a contributing factor. It has been suggested that descent of the perineum and abnormal contraction of the puborectalis muscle during straining on defecation or defecation in the squatting position result in trauma and compression of the anterior rectal wall on the upper anal canal, and internal intussusceptions or prolapsed rectum[(5)].

Although identified as an ulcer, the gross pathology of SRUS can range from a typical crater-like ulcer with a fibrinous central depression to a polypoid lesion. It is always located on the anterior aspect of the rectum, 4 to 12 cm from the anal verge, and is thought to correspond to the location of the puborectalis sling. It is frequently, although not exclusively, associated with internal intussusception or full-thickness rectal prolapse. The term SRUS is ambiguous and undoubtedly misleading because less than one-third of patients show a single rectal ulcer, and lesions are not necessarily ulcerated[(6)].

As the cause of SRUS is unknown and the clinical presentation variable, early diagnosis requires a high index of suspicion from both the surgeon and the pathologist[(7)].Diagnosis of SRUS is based on clinical features, findings on proctosigmoidoscopy and histological examination, imaging investigations including defecating proctography, dynamic magnetic resonance imaging, and anorectal functional studies including manometry and electromyography. A complete and thorough history is most important in the initial diagnosis of SRUS.Differential diagnosis includes Crohn's disease, ulcerative colitis, ischemic colitis, and malignancy.Colonoscopy and biopsy of normal and abnormal-looking rectal and colonic mucosa should be performed.Ulcer is usually located on the anterior wall of the rectum and the distance of the ulcer from the anal margin varies from 3 to 10 cm[(4)].Ulcers may range from 0.5 to 4 cm in diameter but are usually 1-1.5 cm. The appearance of SRUS on endoscopy may vary from pre-ulcer hyperemic changes of rectal mucosa to established ulcers covered by a white, grey or yellowish slough[(4)]. Twenty-five percent of SRUSs may appear as a polypoid lesion; 18% may appear as patchy mucosal erythema; and 30% as multiple lesions.Defecography is a useful method for determining the presence of intussusception or internal or external mucosal prolapse and can demonstrate a hidden prolapse, as well as a non-relaxing puborectalis muscle and incomplete or delayed rectal emptying[(8)].Anorectal manometry and electromyography provide useful information about anorectal inhibitory reflex, pressure profiles, defecation dynamics, and rectal compliance and sensory thresholds. These studies are more useful in children to determine an underlying cause. Histology reveals a thick layer of fibrosis obliterating the lamina propria and a central fibrinous exudate. There is pronounced thickening of the muscularispropria in solitary rectal ulcer, particularly of the inner circular layer, with less prominent thickening of the submucosal layer[(9)].Other common pathologic findings include the presence of mucus-filled glands misplaced in the submucosa and lined with normal colonic epithelium (colitis cysticaprofunda).

Patient education and behavioral modification are the first steps in the treatment of SRUS. Patient has to be reassured that the lesion is benign, encouraged to take a high-fiber diet, advised about avoidance of straining, regulation of toilet habits, and attempt to discuss any psychosocial factors. In patients whose symptoms are resistant to those conservative measures, a more organized form of behavioral therapy such as biofeedback appears promising[(10)]. Surgery is reserved to patients with symptoms persisting even after all these measures. Proctectomy may be required in patients with intractable rectal pain and bleeding, who have not responded to other surgical treatments[(11)]. In our patient the ulcerated lesion was excised and the base and bleeding points cauterized. Our patient responded well to the surgical therapy with no further episodes of bleeding in subsequent follow ups.

V. Conclusion

SRUS is a chronic, benign disorder in young adults, often related to straining or abnormal defecation. The pathogenesis of SRUS is not well understood, but may be multifactorial. Usually, patients present with straining, altered bowel habits, anorectal pain, incomplete passage of stools, and passage of mucus and blood.

The diagnosis can be made clinically, endoscopically, and histologically. Symptoms may resolve spontaneously or may require treatment. A variety of therapies have been tried. Several therapies thought to be beneficial include topical medication, behavior modification supplemented by fiber and biofeedback, and surgery. Patient education and a conservative, stepwise individualized approach are important in the management of this syndrome.

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