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Review Article

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SOLITARY RECTAL ULCER SYNDROME MIMICKING RECTAL NEOPLASM ON COLONOSCOPY

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ABSTRACT

We describe a highly unusual case of solitary rectal ulcer syndrome in a 90 years old African American female patient with a history of distal sigmoid colon resection for colon cancer with hysterectomy for uterine cancer. This patient presented with constipation, abdominal discomfort. Rectal showed positive fecal occult blood test. This finding raised suspicion for a possible recurrent malignancy. Colonoscopy shows the presence of an ulcerative rectal lesion. Histopathology study of the Biopsy showed granulomatous lesion with no evidence of neoplastic tissue.

INTRODUCTION

Solitary rectal ulcer syndrome (SRUS) is a rare benign disorder characterized by a combination of symptoms, endoscopic findings, and histological abnormalities.[1] It was first described by Cruveihier[2,12] in 1829.

When he reported four unusual cases of rectal ulcers. A disorder, with an estimated annual prevalence of one in 100000 persons. It is a disorder of young adults, occurring most commonly in the third decade in men and the fourth decade in women. Men and women are affected equally, with a small predominance in women.[5,15] However, The solitary rectal ulcer is a misnomer because ulcers are found in 40% of patients, while 20% of patients have a single ulcer, and the rest of the lesions differ in shape and size, including hyperemic mucosa to broad-based polypoid lesions.[7,17] There is even a suggestion that the disease process also may involve the sigmoid colon.[8,18]

A 90-year-old African American female patient presented to the clinic with low abdominal pain and discomfort, and constipation. She complained of a feeling of incomplete evacuation. There was no associated nausea or vomiting. Past medical and surgical history was significant. She had colon resection for distal sigmoid colon cancer. She also had a history of hysterectomy for uterine cancer. Clinical examination showed typical vital signs, and her abdomen was soft and non-tender. On rectal examination, there was a finding of positive fecal occult blood. CBC and electrolytes were normal. Colonoscopy showed the indications of possible recurrent cancer, gastro-intestinal occult blood loss, and iron deficiency anemia.

On colonoscopy: An ulcerated non obstructing large mass in the rectum. The mass was noncircumferential and 2 cm in length with 14 mm in diameter. (Fig. 1). No active bleeding was present.

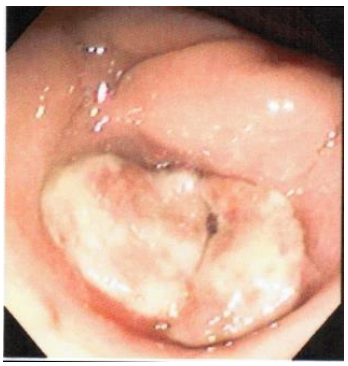

Fig. 1: Shows ulcerated "mass" in the rectum, on colonoscopy.

We treated the patient with mesalamine 1Gm. Suppositories BID, and we referred the patient to a Colo-rectal surgeon for consultation and management.

However, biopsy showed granulation tissue and fibro-purulent - debris. No neoplastic growth in the biopsies.(Fig. 2 & 3)

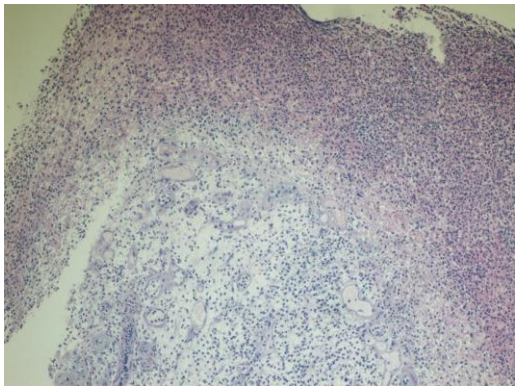

Fig. 2: Shows presence of granulomatous and fibro-purulent debris.

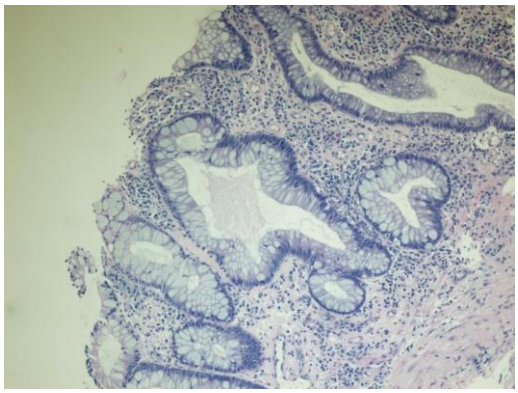

Fig. 3: Same as above in the high power field.

The Colo-rectal surgeon saw the patient in his office some three weeks after her finding of the "mass" and did a proctoscopy and reported that the ulcer is healing and the surrounding edematous tissue had entirely resolved apparently in response to the mesalamine which is an anti-inflammatory medication.

Biopsy report came out negative for malignancy. Multiple fragments of granulation tissue and fibrinopurulent debris were appreciated, and thus the diagnosis of solitary rectal ulcer syndrome was made.

DISCUSSION

SRUS is a chronic, benign, underdiagnosed disorder characterized by single or multiple ulcerations of the rectal mucosa, with the passage of blood and mucus, associated with straining or abnormal defecation.[1] The average time from the onset of symptoms to diagnosis is five years, ranging from 3 mo to 30 years in adults, which is longer than in pediatric patients (1.2-5.5 years).[22]

Clinical features include rectal bleeding, copious mucous discharge, prolonged excessive straining, perineal and abdominal pain, feeling of incomplete defecation, constipation, and rarely, rectal prolapse.[13,14] The amount of blood varies from a little fresh blood to severe bleeding that requires blood transfusion.[15] Although the passage of blood during defecation is the hallmark, up to 26% of patients can be asymptomatic, discovered when investigating other diseases.[7,17]

The underlying etiology and pathogenesis are not fully understood, but multiple factors may be involved. The most accepted theories are related to direct trauma or local ischemia as causes. It is believed 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.[6,17] Mucosal prolapse, overt or occult, is the most common underlying pathogenetic mechanism in SRUS This may lead to venous congestion, reduced blood flow, and edema in the mucosal lining of the rectum and ischemic changes with resultant ulceration. The cause of ischemia may also be related to fibroblasts replacing blood vessels, and pressure by the anal sphincter. Moreover, rectal mucosal blood flow is low in SRUS to a level similar to that seen in normal transit constipation, suggesting similar impaired autonomic cholinergic gut-nerve activity.[18] Self-digitation maneuver to reduce rectal prolapse or to evacuate an impacted stool may also cause direct trauma of the mucosa and ulceration.[19] Although this hypothesis seems plausible, it remains unproven because rectal mucosal intussusception is common even in healthy subjects, but rectal prolapse and SRUS are rare.[20] Besides, not all patients with rectal prolapse have SRUS and vice versa.[21] Furthermore, ulcers usually occur in the mid rectum, which cannot be reached by digital examinations.[22]

Histopathological examination is a gold standard for the diagnosis of SRUS. A fibroblast and smooth muscular obliteration of the lamina propria, crypts' distortion, and surface serration can establish the diagnosis in most cases.[7] The degenerative-regenerative process occurring in the mucosa may cause such changes.[7] Some pathological studies reveal cases where thrombosis, fibrin deposition, and atherosis could be appreciated.[9] Diamond shaped crypts seen by Warren.[8] Tendler and his colleagues[7] also identified mucosal capillary abnormalities, including dilatation, congestion, and thrombosis. It is important to note that these pathological findings are varied and diverse and can be affiliated with multiple disorders, e.g. inflammatory bowel disease, irritable bowel syndrome or adenoma.

Most respond well to laxatives, enemas, and bowel retraining. Our patient above was treated with mesalamine suppositories 1gm, twice a day and did very well with complete resolution.

Recommendation

We highly recommend the usage of Mesalamine suppository for the treatment of solitary rectal ulcer syndrome.

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