Rectal bleeding as a symptom of solitary rectal ulcer syndrome mimicking rectal neoplasm on colonoscopy; a case report

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October 31, 2022

Abstract

Solitary rectal ulcer syndrome (SRUS) is a rare benign rectal disorder. Due to its rare occurrence, it is not properly diagnosed and is often misdiagnosed with other diseases. In this report, we present a case of a polypoid solitary rectal ulcer presented by rectal bleeding and chronic constipation.

Introduction:

Solitary rectal ulcer syndrome (SRUS) is a rare benign rectal disorder, with an estimated prevalence of one in 100,000 individuals annually, which does not differ in terms of gender and can occur at any age, mostly in young adults. Despite its name, it is not limited to ulcers and can affect different parts of the rectum and gastrointestinal tract to the extent that some patients do not even have ulcers. It is characterized by painful and difficult defecation, a sense of incomplete evacuation, perineal pain, tenesmus, chronic constipation, mucus discharge, fresh lower gastrointestinal bleeding, and rarely rectal prolapse.[1-4]

The pathogenesis and etiology of SRUS are not well understood; several factors may be involved, and the most important discussed factors include direct trauma and causes of local ischemia such as straining, rectal prolapse, self-induced trauma, and paradoxical contraction of Puborectalis muscle.[1-3]

Due to its rare occurrence, it is not properly diagnosed and is often misdiagnosed with other diseases such as inflammatory bowel disease (IBD), constipation, and malignancies; so, it is necessary to have knowledge about the diagnostic features and also treatment of this disorder.[1-3] Diagnosis is mostly based on clinical symptoms, endoscopy, histological, and also imaging findings.[1,4] Treatment is based on the severity of the disease and symptoms such as the presence of rectal prolapse. Behavioral modification, conservative treatment, biofeedback therapy, topical therapy, and surgery are options for treatment.[1-4]

In this report, we present a case of a 19-year-old man with a polypoid solitary rectal ulcer presented by rectal bleeding and chronic constipation.

Case Presentation:

A 19-year-old man came to the outpatient gastrointestinal clinic complaining of rectal bleeding and severe constipation. He had a history of constipation and tenesmus since childhood. His symptoms intensified and presented with rectal bleeding recently, so he came to the clinic. He didn't have any past medical or past surgical history and didn't use any medication. His family history of bowel disease and colorectal cancers were unremarkable. He had no complaint of recent weight loss or abdominal pain.

At First, general physical examinations were performed, and there were no abnormalities except pallor. Digital rectal examination was impossible to perform due to partial obstruction of the lumen of the rectum. His blood pressure was 115/75 mm Hg, his heart rate was 96 bpm, his body temperature was 36.6°C, his respiratory rate was 18, and his oxygen saturation was 97% without supplementation.

On his laboratory investigation, his white blood cell count was 7,600, his hemoglobin was 10.9 gm/dl, his hematocrit was 38.8%, his mean corpuscular volume was 65 FL, his ferritin was 6.3 ng/ml, his platelet count was 361,000 and his erythrocyte sedimentation rate (ESR) was 5 mm/h. There was evidence in favor of hypochromic microcytic anemia as a result of iron deficiency anemia. Coagulation profile and liver function tests were within normal ranges. Examinations of stool for parasites and cultures were negative. Occult blood of stool was positive repeatedly.

According to the colonoscopy indications in this patient such as positive occult blood of stool and iron deficiency anemia as a result of gastrointestinal blood loss, colonoscopy was performed and revealed one large semi-circumferential infiltrative fungoides mass lesion in the rectum at 5 cm of the anal verge. **(Figure 1)** The entire colon up to the cecum was observed to be normal. As the mass was suspected to be malignant, biopsy was taken.

Figure 1: Two sections of the colonoscopic findings of the patient

The rectal mucosal biopsy revealed features of solitary rectal ulcer with surface erosion, crypt hyperplasia, ecstatic capillaries, fibrosis, and extension of smooth muscle fibers in lamina propria with diamond shape crypts. Although there is ulcer slough and features of ulceration, there is minimal inflammation in lamina propria. Crypt cells show regenerative hyperplasia. **(Figure 2)** These features of histology and colonoscopy findings were suggestive of polypoid solitary rectal ulcer.

Figure 2: Two sections of the histopathological findings of the patient

Treatment with bulking agents, hydrocortisone, and mesalamine enemas was prescribed and he was advised to have a high-fiber diet. During the follow-up visits his symptoms such as constipation and hematochezia were alleviated. Now he is under the care of a gastroenterologist and advised to present regularly to perform follow-up with colonoscopy examination.

Discussion:

In this report, we presented a rare case of polypoid lesion of the rectum as a variant of solitary rectal ulcer syndrome. The polypoid appearance of this lesion may be misdiagnosed with an inflammatory polyp, hyperplastic polyp, or rectal carcinoma leading to delayed diagnosis and treatment of the disease which can cause several complications.[5]

The diagnosis is based on the patient's symptoms, colonoscopy, and histopathological findings. The most common symptom is rectal bleeding as mentioned in our case. The most common colonoscopic findings are solitary or multiple ulcers or polyps, however, some patients do not have any ulcers. The ulcer is usually located in the anterolateral wall of the rectum 3 – 10 cm from the anal verge.[3,4]

The colonoscopic finding of solitary rectal ulcer can be similar to inflammatory bowel disease and rectal carcinoma so it is necessary to have biopsies for a definite diagnosis. Histopathological findings are the gold standard for the definite diagnosis of solitary rectal ulcer. Histologic features are fibromuscular obliteration of the lamina propria, extension of muscle fiber upward between crypts, glandular crypt abnormalities, collagen deposition in lamina propria, surface erosion, and reactive hyperplasia.[1,6,7]

As described above, minimal inflammation in lamina propria and regenerative hyperplasia in crypt cells are seen in our case and this is important to distinguish from dysplasia. Sometimes this regenerative hyperplasia with the extension of smooth muscle fibers in lamina propria and around the crypts can give the false impression of invasive adenocarcinoma, so it is necessary to consult with an expert gastrointestinal pathologist to confirm the diagnosis.

Treatment is based on the severity of the disease. Conservative therapy is the first line of treatment in most cases and surgery can be used for patients who are unresponsive to conservative therapy or have rectal prolapse. Conservative therapy includes a high-fiber diet, intermittent use of laxatives, changing toilet habits, corticosteroids, sulfasalazine, and 5-aminosalicylate enemas are reported to be effective as topical therapies for solitary rectal ulcers. Procedures used for solitary rectal ulcers include rectopexy, Delorme's procedure, local excision, and perineal proctectomy.[1,4,8] Our patient was treated with a combination of lifestyle and topical therapies that relieved his symptoms.

In conclusion, for patients with a history of rectal bleeding and a suspicious mass observed in the colonoscopy, a biopsy must be taken to decide on the treatment plan, because the treatment plans differ based on the nature of the mass whether it is malignant or not.

Acknowledgments: The authors are thankful to the patient and Imam Reza hospital's endoscopy ward staff for their collaboration.

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