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RECURRENT ANEMIA DUE TO MUCOSAL PROLAPSE SYNDROME

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ABSTRACT

Mucosal prolapse syndrome is a rare group of benign disorders mainly in the rectum. It often causes rectal bleeding, abdominal pain, and anaemia. We report a case of severe anaemia due to mucosal prolapse syndrome requiring blood transfusion. A 36-year-old man was referred for further evaluation of recurrent iron deficiency anaemia. Initial examinations, including esophagogastroduodenoscopy, colonoscopy, and capsule endoscopy, revealed no significant abnormalities other than rectal mucosal prolapse syndrome without notable bleeding. Nine months later, despite oral iron therapy, the patient developed bloody stools and severe anaemia (haemoglobin 6.2 g/dl), requiring a transfusion. Colonoscopy showed an enlarged mucosal prolapse, which was strongly suspected as the cause of the anaemia, leading to a transanal lumpectomy. Postoperatively, the patient has remained symptom-free, with no recurrence of anaemia or bloody stools. While mucosal prolapse syndrome is an rare condition, clinicians should remain vigilant about its potential to cause severe anaemia requiring blood transfusion.

KEYWORDS

Mucosal prolapse syndrome, solitary rectal ulcer syndrome, gastrointestinal bleeding scintigraphy, anaemia

LEARNING POINTS

- Mucosal prolapse syndrome (MPS) is a benign group of conditions associated with mucosal prolapse and can appear in a variety of forms, mainly in the rectum.
- Although MPS is rare, clinicians should remain vigilant as it can lead to severe anaemia requiring blood transfusions.

INTRODUCTION

Mucosal prolapse syndrome (MPS) is a rare benign disorder that primarily affects the rectum and is used as a collective term for solitary rectal ulcer syndrome (SRUS), rectal prolapse, proctitis cystica profunda, and inflammatory cloacogenic polyp[1,2]. It often presents with symptoms such as rectal bleeding, abdominal pain, and constipation, and may also lead to anaemia[1,2]. Here, we report a case of MPS that presented with severe anaemia requiring blood transfusion.

CASE DESCRIPTION

A 36-year-old man presented with recurrent iron deficiency anaemia (IDA). He was diagnosed with anaemia one year before and underwent esophagogastroduodenoscopy

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(EGD) and colonoscopy which yielded normal results except for internal haemorrhoids. The family physician prescribed oral iron, which improved the anaemia, but when the iron was stopped, the anaemia recurred. Consequently, the patient was referred to our hospital. He denied weight loss, hematemesis, melena, and haematochezia. His past medical history included cholelithiasis. The patient had no regular medications and no known allergies. He reported consuming approximately 1 litre of beer daily and had a history of smoking 15 cigarettes per day. There was no history of illicit drug use. He worked in an office environment and had no history of exposure to chemical substances. The patient's family history revealed that his mother had died of a subarachnoid haemorrhage, but there was no family history of anaemia. His vital signs were stable. On physical examination, he had the pallor of the ocular conjunctiva. Abdominal examination revealed a soft abdomen without tenderness. Rectal examination revealed no abnormalities. Laboratory tests showed a decrease in haemoglobin (Hb) of 6.7 g/dl and a mean corpuscular volume of 64.1 fl, a ferritin level of 35.1 ng/ml, a transferrin saturation of 3.5%, a folate level of 6.6 ng/ml, and a vitamin B12 level of 317 pg/ml. There was no evidence of haematuria, and faecal occult blood tests were negative on two separate occasions. Chest and abdominal computed tomography scans with contrast, repeated EGD, and capsule endoscopy revealed no significant abnormalities. A colonoscopy showed findings of rectal MPS, but there was no significant bleeding *(Fig. 1)*, and the gastroenterologist ruled out MPS as the cause of the anaemia. Oral iron was prescribed, and the patient was followed up on an outpatient basis. His Hb levels improved to within the normal range, but 9 months later, the patient developed bloody stools and progressive anaemia with Hb 6.2 g/dl. Red blood cell transfusion was performed, and further examinations were conducted. Gastrointestinal bleeding scintigraphy revealed an accumulation of nuclide around pelvic lesions, but it was unclear whether the lesions were in the rectum or bladder in the early phase at 24 hours *(Fig. 2)*. He underwent another colonoscopy, which revealed no active bleeding but findings of an enlarged rectal mucosal prolapse *(Fig. 3)*. Given the results of previous inspections, MPS was determined to be the cause of the bloody stools and recurrent anaemia, and the patient underwent a transanal lumpectomy. The pathological findings were consistent with MPS. Since the surgery, he has not presented with bloody stools or anaemia.

DISCUSSION

MPS is a benign condition, predominantly associated with the rectum. It is rare, with an estimated incidence of 1 in 100,000 adults[3]. Benign ulcers of the rectum were described by Cruveihier J. in 1832 and later became known as SRUS[2,4]. Although the pathogenesis of SRUS is unclear, SRUS and rectal mucosal prolapse have histological features in common. Lesions may appear outside the rectum and can present in various forms, including non-ulcerative lesions[2,3,5].

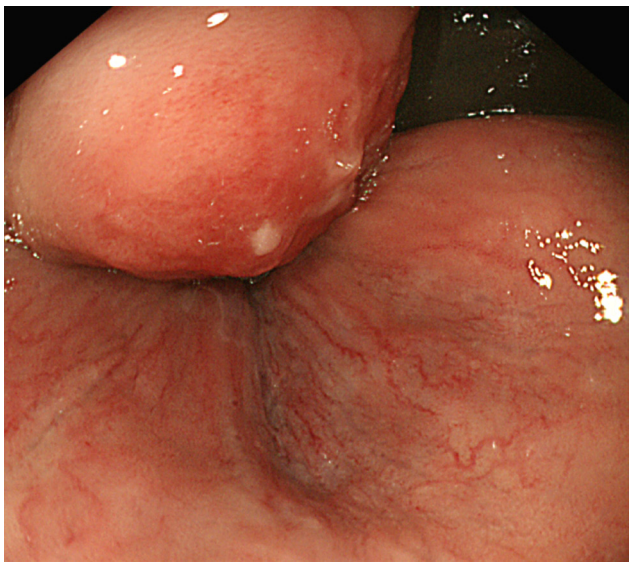

Figure 1. The initial colonoscopy revealed a proliferative lesion with erythema in the rectum.

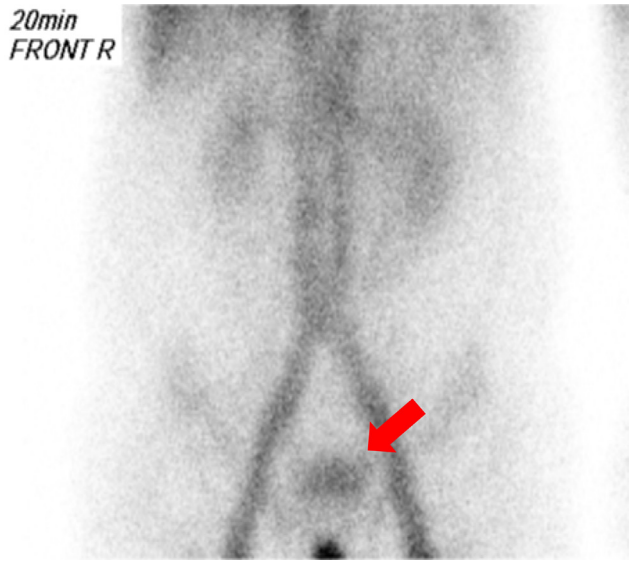

Figure 2. Gastrointestinal bleeding scintigraphy revealed accumulation of nuclide around pelvic lesions in the early phase at 24 hours (arrow).

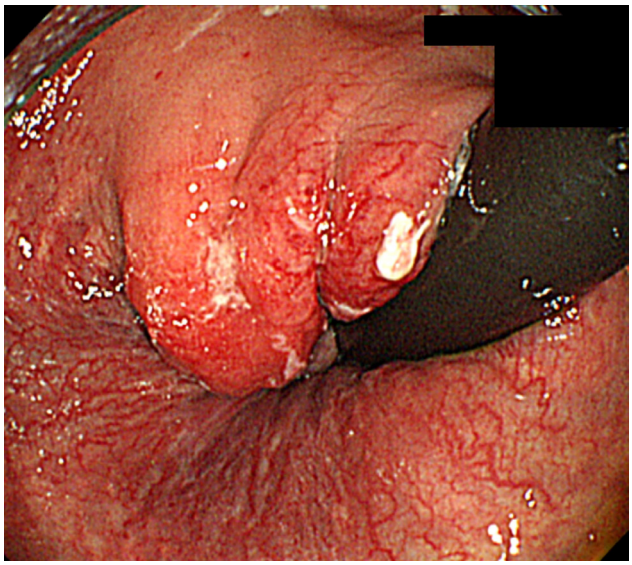

Figure 3. The second colonoscopy showed more enlargement and erythema in the anterior wall of the rectum.

Today, due to their shared clinical and pathological features, SRUS, rectal prolapse, proctitis cystica profunda, and inflammatory cloacogenic polyp are collectively referred to as MPS[1,2]. The present case also revealed a prolapsed lesion with erythema, a finding consistent with MPS. Rectal bleeding, mucous discharge, tenesmus, and constipation are characteristic of MPS[2]. Furthermore, a previous study reported that anaemia was present in 22% of patients with MPS[1]. Considering this, it is possible that we were unable to effectively detect any bleeding from the rectal lesion during the initial colonoscopy. Although MPS is rare , clinicians should be aware of the syndrome and the associated risk of bleeding.

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