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Chronic rectal bleeding in young adults: Exploring the rare diagnosis of rectal vascular malformation

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Description

Rectal Vascular Malformations (RVM) are rare and poorly documented, primarily relying on case reports and a small number of case studies found in the literature [1-4]. Typically, this condition leads to painless rectal bleeding in young adults, with more than half of the cases presenting with anemia [2,5,6]. Additional symptoms, such as constipation and abdominal pain, have also been documented [3] and 10% of the cases are incidentally diagnosed [3,5].

Since the physical examination, including digital rectal examination, can be inconclusive, there are various complementary diagnostic methods that assist in the diagnosis and management of this pathology, such as colonoscopy, contrast-enhanced Computerized Tomography (CT) scan, and Magnetic Resonance Imaging (MRI) [6-8].

Colonoscopy is a valuable tool for diagnosis and determining the extent of the disease. The presence of multiple bluish-purple submucosal masses, indicative of dilated tortuous blood vessels, strongly suggests vascular malformation (VM) [3,4,9,10].

CT angiography aids in characterizing the disease, outlining its extent, and assessing involvement with adjacent structures [9]. Moreover, CT angiography can identify the vascular supply of high-flow lesions, reveal draining vessels, and indicate the presence of phleboliths, characteristic of low-flow venous malformation. However, for VM-related lesions, especially in follow-up, MRI outperforms CT. On T2-weighted images, MRI enables the detection of high-signal-intensity wall thickening with multiple serpiginous structures in the perirectal region, suggesting increased vascularity and blooming phleboliths. MRI is also superior to CT in locating the upper limit of the lesion and assessing its extension into adjacent organs [9].

A biopsy of these lesions is not recommended due to the risk of severe bleeding [11].

We present the case of a 49-year-old man referred to a general surgery consultation due to chronic anal pain since childhood and episodes of rectal bleeding persisting for 17 years. Additionally, he was being monitored in hematology due to an iron-deficiency anemia and was receiving optimized medical treatment. There were no alterations to the physical examination.

He performed a colonoscopy (Figure 1), CT scan (Figure 2), and MRI (Figure 3).

The treatments described for this pathology are abdominoperineal resection or anterior rectum resection with total mesorectal excision. Vascular embolization, radiotherapy and sclerotherapy have been suggested as management options, but they have had varying degrees of success. These conservative therapies are limited to poor candidates for surgical resection due to RVM´s transmural involvement and risk of recurrence [10].

The case was discussed in a multidisciplinary team, including vascular and general surgeons and the advantages and risks of the surgery were explained to the patient. Since the symptoms have been controlled lately, the patient refused the surgery, keeping follow-up in the consultation.

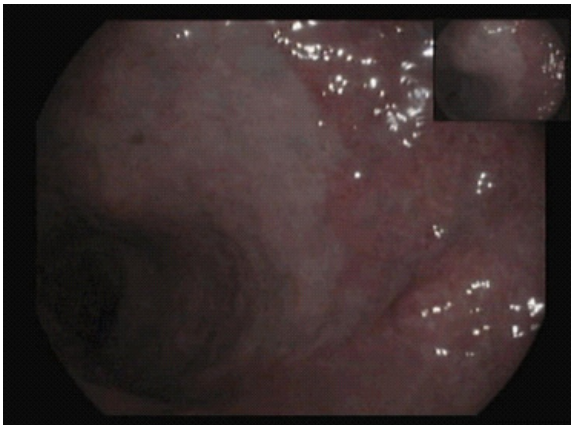
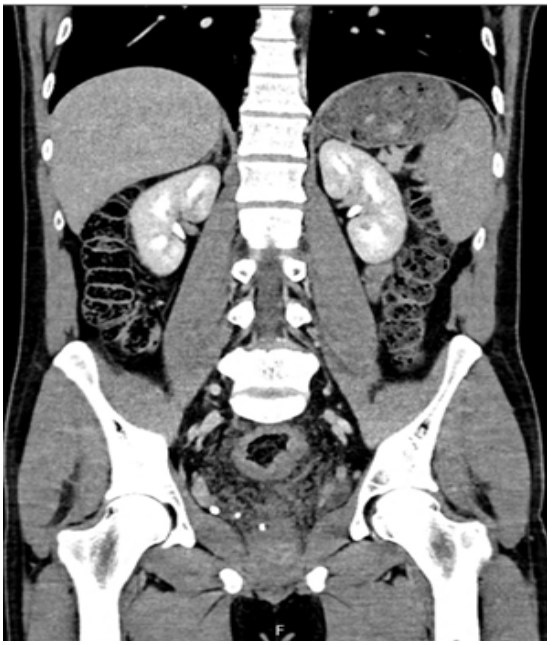


Figure 1: The patient colonoscopy showing in the distal rectum, up to 10 cm from the anal margin, the presence of highly congested mucosa with some erosions and confluent swollen areas covered by congestive mucus.



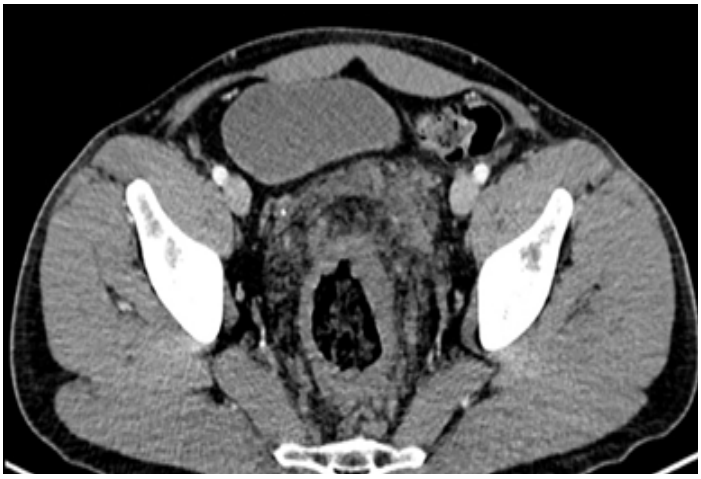


Figure 2: CT scan showing an exuberant thickening of the entire rectum and anorrectal transition, displaying an irregular appearance, associated with a diffuse densification of the mesorectal fat and the presence of multiple prominent venous structures with serpiginous morphology. Additionally, there are several calcified images, both infra and pericentimetric, scattered throughout the pelvic cavity, compatible with phleboliths.

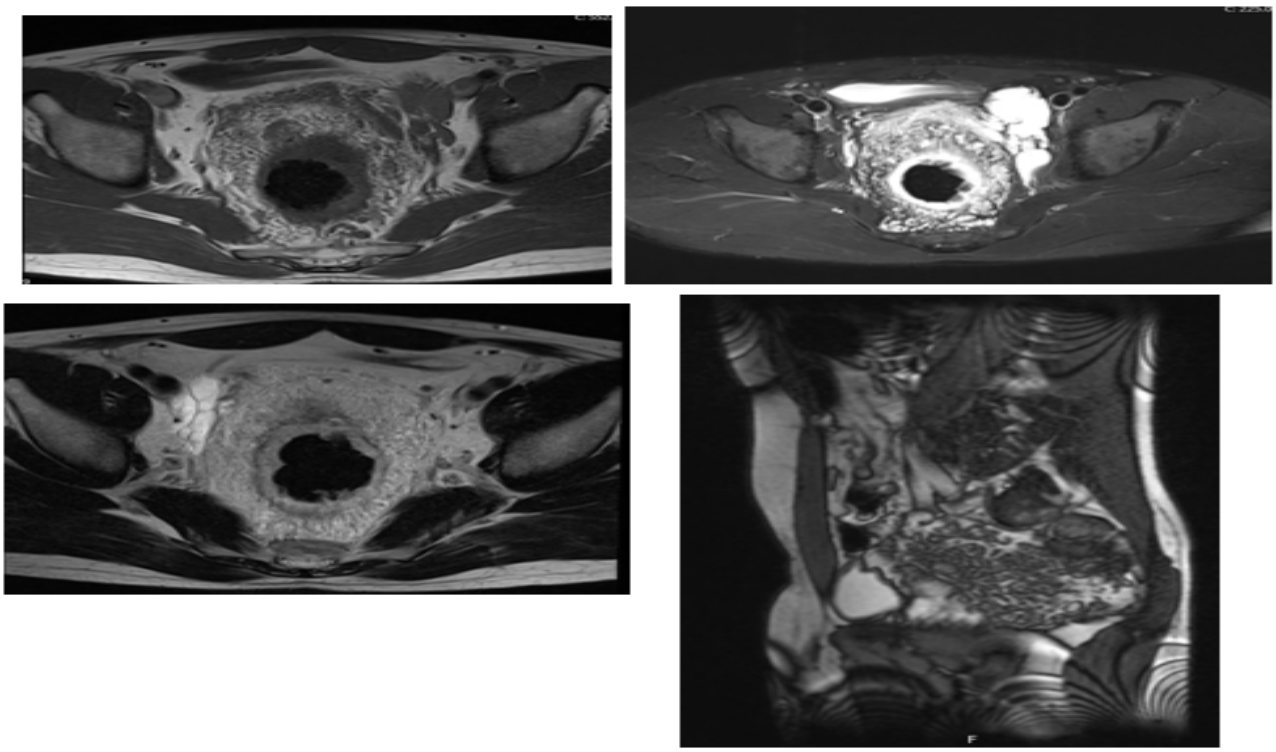


Figure 3: MRI revealed marked venous engorgement throughout the perirectal space, extending even into the mesosigmoid. Accompanying this is the presence of two heterogeneous lesions primarily composed of vascular "lakes." One, situated on the left in the pelvic cavity, measures approximately 10 cm in length and 3.3 cm in width, while the other, on the right, is less prominent, measuring about 5 cm in length and 3 cm in width. Both lesions exhibit phleboliths. There was no involvement of adjacent organs. The possibility of low-flow venous malformation was considered and then confirmed by multiphasic MRI, which showed transmural T2 hyperintensity, increased vascularity within the mesorectum, and mild parametrial congestion.

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