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Presacral retroperitoneal hematoma after blunt trauma presents with rectal bleeding — A case report

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ABSTRACT

INTRODUCTION: We present a case of a presacral hematoma, which penetrated into the rectum resulting in rectal bleeding. This is an unusual presentation of a presacral hematoma.
PRESENTATION OF THE CASE: A 76-year-old woman, using warfarin anticoagulant prophylaxis, presented with a rectal bleed two days after a fall. A sigmoidoscopy revealed that the source of bleeding was a presacral hematoma penetrating into the rectum. A Computed Tomography scan of the pelvis confirmed the presence of a hematoma measuring 10 × 9.4 cm in the presacral space, as well as a fracture of os coccygis. She was transferred to a highly specialized facility, where she was treated conservatively with blood transfusions and repeated endoscopic toilet of the presacral cavity. One month after her initial fall, the patient had fully recovered.
DISCUSSION: Rectal bleeding usually causes suspicion of a bleeding in the gastrointestinal tract. In this report the patient's anticoagulant treatment has likely contributed to bleeding and the formation of the hematoma. To our knowledge, this is the first case report of a presacral hematoma acutely penetrating into the rectum and causing lower gastrointestinal bleeding.
CONCLUSION: Rectal bleed after trauma, in a patient receiving anticoagulant treatment, should raise suspicion of a penetrating hematoma, and such patients should be managed at highly specialized facilities.

1. Introduction

Rectal bleeding, observed as fresh blood in the stool, will lead to suspicion of bleedings in the lower gastrointestinal (GI) tract. GI bleeding can be attributed to infections, chronic inflammatory bowel diseases, and cancer. In patients receiving anticoagulant treatment, GI bleeding can occur spontaneously [1]. The relative risks of GI bleeding with different types of anticoagulants remain inconclusive, primarily, since experience with newer anticoagulants, such as dabigatran and rivaroxaban, is still insufficient. Meta analyses showed an increased risk of GI bleeding with new drugs compared to warfarin [2,3]. While vitamin K can be used to antagonize the effect of warfarin, there are no specific reversal agents for the new drugs [1]. The risk of gastrointestinal bleedings, as a result of treatment with non-steriod-anti-inflammatory-drugs (NSAIDS) or aspirin, are considered minor compared to warfarin [4].

Rectal bleeding does usually not lead to suspicion of extra intestinal cause of bleeding. This case shows that a traumatic presacral hematoma can penetrate directly into the rectum and cause a rectal bleed. Intramural hematomas in patients receiving anticoagulant treatment are well described [5]. In at least three cases in literature, a perforated intramural hematoma has presented with rectal bleeding [6–8], but to our knowledge, this is the first time a presacral hematoma, secondary to blunt trauma, has penetrated directly into the rectum and presented with rectal bleeding. Presacral hematomas have been described in connection with either trauma [9,10] or anticoagulant treatment [11], but patients, described in these case reports, have presented with other symptoms than rectal bleeding. One case has been reported, where a presacral hematoma communicated with the rectum through a fistula and presented with a rectal bleed [12].

2. Presentation of the case

A 76-year-old Caucasian woman in anticoagulant treatment, due to well treated atrial fibrillation, was admitted with fresh rectal bleeding. The patient had fallen and landed on her back a few days earlier (view Table 1 for timeline). During per rectal examination, oozing of blood was observed from the rectum, but no space filling mass was palpated. At the time of admission, the hemoglobin level was 6.8 mmol/L. She had no fever, but slightly elevated levels of white blood cells and C-Reactive Protein. Her International Normalised Ratio (INR) was measured to be 3. Warfarin treatment was paused. Two days later, her hemoglobin levels had dropped to 4.7 mmol/L. A large mass could now be palpated in

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Table 1
Time line from the development of symptoms through out diagnosis work-up to management.

Timeline	
Day 1:	Patient falls on her back
Day 3:	Patients admitted to hospital with rectal bleeding. Hemoglobin level: 6.8 mmol/L. INR: 3. Elevated levels of white blood cells and CRP. Warfarin treatment paused.
Day 5:.	Hemoglobin level 4.7 mmol/L. Sigmoidoscopy reveals presacral hematoma penetrating into the rectum. Coagulant pad is placed.
Day 6:	A CT-scan shows a fracture of os coccygis and a 10 × 9.4 cm presacral hematoma
Day 9:	Patient is transferred to highly specialized facility
Day 12–21:	A total of five endoscopic cavity lavages are performed
Day 15:	Patient is transferred back to referring facility
Day 26:	Patient is discharged from hospital
Day 34:	Uneventful follow up at the tertiary center

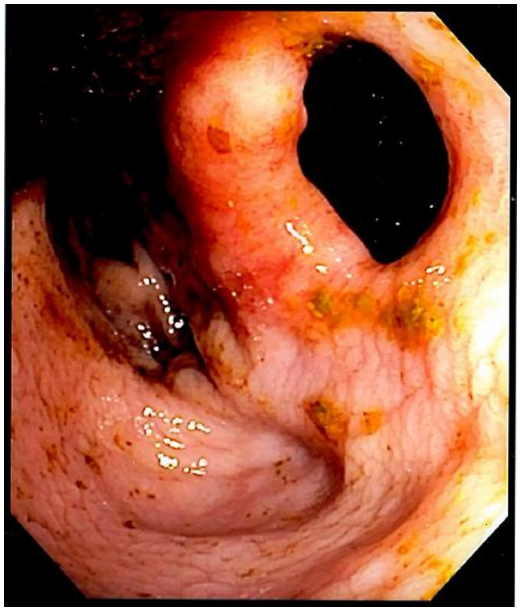

Fig. 1. Endocopic imaging revealing a large hematoma in the back of the rectum.

Fig. 2. CT-scan showing a hematoma measuring 10 × 9.4 cm in the presacral space.

the presacral space during per rectal examination. A sigmoidoscopy was performed, which revealed a large hematoma in the back of the rectum. Blood was observed floating through a traumatic hole from the presacral space to the rectum (Fig. 1). A coagulant pad was placed. The plan was to treat the hematoma conservatively, with the possibility of surgical intervention if necessary. This conservative approach consisted of blood transfusions and repeated endoscopic cavity lavage. The next day, a Computed Tomography (CT) scan of the pelvis confirmed the presence of a hematoma measuring 10 × 9.4 cm in the presacral space (Fig. 2). A fracture of os coccygis was also observed.

The patient was transferred to a highly specialized tertiary center, in order to monitor here, and intervene surgically if necessary. A second sigmoidoscopy, at the tertiary center, confirmed the presence of a presacral hematoma emptying out into the rectum. No active source of bleeding was identified. Pieces of the hematoma were evacuated, and the hematoma was washed with saline, until the cavity was empty. This was repeated during her stay at the tertiary center, and continued after her transfer back to the referring center.

The patient had an uneventful recovery, with exception of simple pneumonia. She was discharged 23 days after her initial admission to hospital. Follow up at the tertiary center, one week after discharge, was uneventful.

3. Discussion

The most common complication of anticoagulant therapy is bleeding. Gastrointestinal bleeding is a known complication to treatment with vitamin-K-antagonists, and often presents itself with a bloody stool.

This case however, is different, since the source of the bleed was not localized in the actual gastrointestinal tract, but penetrated from the presacral space into the rectum, and thereby presented with rectal bleeding. Three cases of presacral hematomas have previously been described [9–11]. In these cases, the patients presented with diarrhea, abdominal pain or pain in the rectum while sitting [9,10], or mimicking rectal malignancy by presenting as a large, boggy mass, felt during rectal examination [11]. Rectal bleeding was not the main symptom, and only in one of these cases was a minor rectal bleeding reported. At least three cases have been presented, where hematomas spontaneously perforated into the rectum and presented with rectal bleeding and severe abdominal pain, but in all these cases, the hematomas were intramural [6–8]. To our knowledge, there is only one other case of a presacral hematoma presenting as a rectal bleed [12]. In that case, the patient had fallen two weeks prior, and over time had developed a communicating fistula between a presacral hematoma and the rectum. In our case, the hematoma acutely penetrated into the rectum through a direct traumatic hole, which resulted in significant bleeding.

Colonoscopy is the main modality for diagnosing the source of lower gastro intestinal bleeding [13]. Furthermore, colonoscopy is desirable, as it can be used for both diagnostic and therapeutic purposes, as in this case, where evacuation of the hematoma, followed by endoscopic toilet, was performed. CT scans remain the main modality for visualizing hematomas.

Warfarin has a narrow therapeutic index, and overdosing resulting in bleeding is a common event [1]. In this case, the patient had an initial INR of 3, which is within the therapeutic index. As a result, her anticoagulant treatment was paused, but vitamin K treatment was not necessary. Vitamin K treatment is recommended

in patients with ongoing significant gastrointestinal bleeding, even if the INR is not above therapeutic levels [1]. Since the patient's hemoglobin continued to drop, and she continued to bleed, it is likely, that she could have benefitted from active reversal of her anticoagulant treatment, with vitamin K.

The patient was managed conservatively with repeated endoscopic toilet, to prevent abscess formation. However, if the hematoma had shown signs of infection or other complications, a relieving sigmoidostomy or another surgical intervention, may have been indicated. Since such cases are rare, and the choice of approach can have severe consequences, such patients should be managed at a highly specialized facility.

4. Conclusion

Rectal bleed following trauma, in a patient receiving anticoagulant treatment, should raise suspicion of penetrating hematoma. A CT scan of the pelvis and abdomen is the most accurate way of diagnosing hematomas. The source of the bleeding can usually be localized endoscopically. Such patients should be referred to a highly specialized facility.

Conflicts of interest

None.

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Ethical approval

As this is a case report, no ethical approval was necessary.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Both authors contributed to conception of the project, data collection, writing the manuscript and proof readings.

Guarantor

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