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WHEN EVERYTHING SEEMED OVER... THE RECTAL BLEEDING BEGINS: ABOUT A RARE POST- PROSTATE BIOPSY INCIDENT

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ABSTRACT

Prostate biopsy is a common and minimally invasive diagnostic procedure that can be easily performed in outpatient settings. Early rectal or urinary bleeding, usually mild and self-limiting, has been well documented. We report here the case of a 65-year-old patient who presented with moderately heavy rectal bleeding nine days after a transrectal prostate biopsy performed under anticoagulant therapy for an elevated PSA level. Endoscopic examination revealed a congested and erythematous area of the posterior rectal wall corresponding to the biopsy puncture site, associated with internal hemorrhoids, without active bleeding. The bleeding resolved spontaneously under conservative management, without endoscopic or radiological intervention. This case illustrates an exceptional delayed hemorrhagic complication following prostate biopsy, highlighting the importance of close post-procedural monitoring and individualized anticoagulant management.

KEYWORDS

Transrectal prostate biopsy, Delayed rectal bleeding, Anticoagulants, Internal hemorrhoids, Conservative management.

MAIN ARTICLE

Introduction

Prostate biopsy is a routine diagnostic procedure in the exploration of prostate cancer. Its most common complications are benign and early: hematuria, hemospermia, and moderate rectal bleeding appearing within the first few days following the procedure. Infectious complications, mainly prostatitis or post-biopsy sepsis, represent more serious but well-documented events.

Conversely, late hemorrhagic complications, particularly delayed rectal bleeding, are rare and poorly described. The usual time for these bleeding events to appear is 24 to 72 hours.

Materials and Methods

We report the case of a patient who presented with moderately heavy rectal bleeding nine days after a prostate biopsy, illustrating an exceptional late complication of this common procedure, and review the literature on this subject.

Results

This is a 65-year-old patient with a history of mechanical valve replacement under vitamin K antagonist (VKA), insulin-requiring type 2 diabetes, and a brother being followed for metastatic prostatic adenocarcinoma.

The patient underwent a prostate biopsy indicated in the context of an elevated serum PSA of 11.2 ng/mL associated with a suspicious hypoechoic area in the right peripheral lobe on prostate ultrasound. VKAs had been stopped three days prior to the procedure and were switched to a curative dose of low-molecular-weight heparin (LMWH). The procedure proceeded without immediate incident.

Nine days after the biopsy, the patient presented to the emergency department with a presentation of lower gastrointestinal bleeding, consisting of moderately heavy rectal bleeding, without abdominal pain or associated signs of infection.

--Clinical Examination

On admission, the patient was conscious, afebrile, with blood pressure of 120/70 mmHg and heart rate of 92 bpm, eupneic with 99% saturation on AA. Hemodynamic status was stable. Abdominal examination revealed a soft, painless abdomen, with no guarding or palpable masses.

Digital rectal examination revealed soft, painless rectal walls, with no palpable masses, and good sphincter tone. The prostate was enlarged, firm, homogeneous, and non-tender to palpation. There was red blood on the fingertip, with no masses or palpable anal fissures.

- Laboratory assessment

The complete blood count (CBC) showed a hemoglobin level of 10.2 g/dL (compared to 13.4 g/dL on the pre-biopsy assessment), reflecting moderate deglobulization, with a hematocrit of 30%, platelets of 210,000/mm³, and leukocytes of 7,800/mm³.

The PT was 62% with an INR of 1.45, consistent with the switch to LMWH and the recent discontinuation of VKAs.

The blood electrolytes and renal function were normal (creatinine of 9 mg/L, urea of 0.35 g/L).

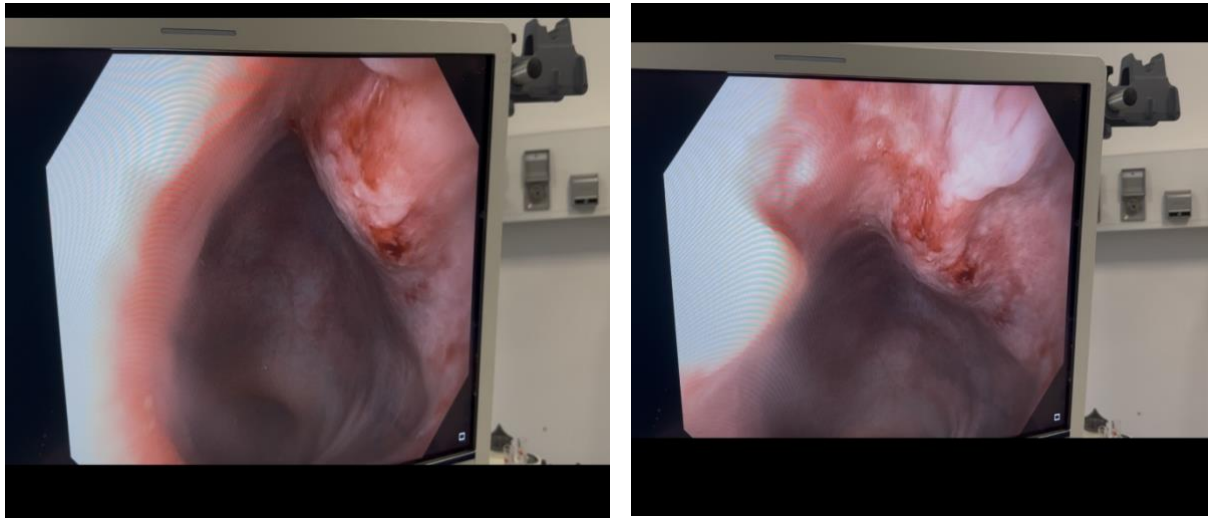
-Endoscopic Exploration

A rectosigmoidoscopy was performed. It revealed, approximately 3 to 4 cm from the anal verge, a congested and erythematous area of the posterior rectal wall, corresponding to the prostate biopsy puncture site. This area presented small superficial erosions covered with blood clots, with no active bleeding at the time of exploration.

Furthermore, the examination revealed the presence of congested internal hemorrhoids, slightly protruding into the rectal lumen, which reduced spontaneously after insufflation, corresponding to stage II internal hemorrhoids. The remainder of the rectosigmoid mucosa appeared normal, with no ulceration, diverticula, or vascular lesions.

Abdominopelvic CT angiography showed no vascular abnormalities or extravasation of contrast medium. Management consisted of temporary discontinuation of anticoagulants, followed by a preventive dose of LMWH, moderate rehydration, and close daily clinical and biological monitoring. The rectal bleeding stopped spontaneously without the need for endoscopic procedures.

The evolution was clinically favorable, with stabilization of the hemoglobin level at 10.5 g/dL at the control and absence of hemorrhagic recurrence during follow-up.



Right: Congestive and erythematous area of the posterior rectal wall with small superficial erosions covered with blood clots, without active bleeding

Left: Stage II congestive internal hemorrhoids

Discussion

Rectal bleeding after transrectal prostate biopsy (TRUS) is a relatively common complication, usually benign and self-limiting. Severe bleeding, affecting up to 1% of patients undergoing transrectal prostate biopsy, is rare but can be life-threatening (1). Rectal bleeding usually occurs immediately after the biopsy. Delayed-onset bleeding is rare, although several cases have been reported [2-3].

In our patient, profuse rectal bleeding appeared 7 days after the prostate biopsy. Saito et al. (2022) described a case of massive rectal bleeding occurring 5 days after a prostate biopsy. Ando et al. (2018) reported a case of severe rectal bleeding occurring 3 days after a prostate biopsy. Manno et al. (2019) described a rare case of delayed massive rectal bleeding 6 days after a prostate biopsy.

Bleeding can result from puncture of rich vascular structures, such as the middle and inferior rectal arteries, as well as the rectal venous plexus. In patients with internal hemorrhoids, the risk of bleeding may be increased due to the dilation of these vascular structures. (6)

The majority of rectal bleeding after TRUS prostate biopsy is treated conservatively.

However, in severe cases, endoscopic or radiological interventions may be necessary. One

study reported a case of massive rectal bleeding after TRUS prostate biopsy, successfully treated with angiographic embolization after failed epinephrine injection. (7)

Other endoscopic methods, such as epinephrine injection, sclerotherapy, thermocoagulation, and rubber band ligation, have also been used to control post-biopsy rectal bleeding. One study reported a case of massive rectal bleeding caused by an internal hemorrhoid, successfully treated with rubber band ligation.[6]

Several risk factors have been identified for severe rectal bleeding after TRUS prostate biopsy. Advanced age and the use of anticoagulants or antiplatelet agents are contributing factors. One study reported a case of massive rectal bleeding in a 64-year-old patient on aspirin, requiring a blood transfusion. (8)

Preoperative management of anticoagulants and antiplatelet agents is crucial to minimize the risk of bleeding. Protocols recommend discontinuing anticoagulants and antiplatelet agents before the procedure, with appropriate switching if necessary. In your case, discontinuing VKAs and switching to a curative dose of LMWH was appropriate.

Your case shares similarities with those reported in the literature, including the occurrence of rectal bleeding after TRUS prostate biopsy, the presence of internal hemorrhoids, and effective conservative management. However, your case is notable for the absence of recurrent bleeding and the stabilization of hemoglobin levels without the need for endoscopic or radiological intervention.

Conclusion:

Transrectal prostate biopsy remains an essential procedure in the diagnosis of prostate cancer, with an overall favorable safety profile. Bleeding complications, particularly rectal bleeding, are common but most often benign and self-limiting. However, the late occurrence of rectal bleeding, as illustrated in this case nine days after the procedure, remains rare and can represent a diagnostic and therapeutic challenge.

Management should be guided by clinical assessment, hemodynamic stability, and individual risk factors, including anticoagulation and the presence of hemorrhoids. The majority of cases respond favorably to a conservative strategy, while endoscopic or radiological interventions remain reserved for persistent or massive bleeding.

This case highlights the importance of careful monitoring even in the late post-biopsy period and illustrates that prudent and personalized management of anticoagulants, combined with close clinical follow-up, allows for satisfactory resolution without invasive procedures.

Documentation and analysis of rare incidents enriches the literature and contributes to improving the safety and quality of care in urology.

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