Case Report

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Endoscopic ultrasound–guided diagnosis and drainage of a large retro-rectal hematoma with unusual presentation

Abstract

Endoscopic Ultrasonography (EUS) use for both diagnostic and therapeutic purposes has markedly increased over the past few years. Most of this growing number for EUS use was focused on upper gastrointestinal indications, with few recent publications directed to its rectal and perianal use. Therapeutic applications currently include but are not limited to drainage procedures via fine needle aspiration (FNA) aimed at pancreatic pseudocysts, infected gallbladders, abscesses, and hematomas whenever accessible. Pelvic hematoma is an uncommon surgical complication of radical prostatectomy with large ones resulting in urethral anastomotic disruption or a pelvic abscess after becoming infected. We here report a large post-radical-prostatectomy retrorectal-hematoma presenting as constipation and back pain which was successfully diagnosed and treated with transrectal EUS-FNA drainage.

Keywords: endoscopic ultrasonography, fine needle aspiration, hematoma, therapeutic endoscopic technique

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Abbreviations: EUS, endoscopic ultrasonography; FNA, fine needle aspiration

Introduction

Endoscopic Ultrasonography (EUS) use for both diagnostic and therapeutic purposes has markedly increased over the past few years. Most of this growing number for EUS use was focused on upper gastrointestinal indications, with few recent publications directed to its rectal and perianal use.[1,2] Therapeutic applications currently include but are not limited to drainage procedures via fine needle aspiration (FNA) aimed at pancreatic pseudocysts, infected gallbladders, abscesses, and hematomas whenever accessible.[3–10]

Pelvic hematoma is an uncommon surgical complication of radical prostatectomy with large ones resulting in urethral anastomotic disruption or a pelvic abscess after becoming infected.[11] We here report a large post-radical-prostatectomy retrorectal-hematoma presenting as constipation and back pain which was successfully diagnosed and treated with transrectal EUS-FNA drainage.

Case report

A 77 year old male patient presented to the GI private clinic due to a 3 week history of constipation. Past medical history was positive for type 2 diabetes mellitus and coronary artery disease (patient had PTCA + stent insertion). Patient was maintained on oral hypoglycemics and aspirin. He had undergone a prostatectomy 6 month prior to presentation. The patient reported progressive difficulty to defecate accompanied with urinary frequency as well. Upon further investigation, the patient reported having low back pain for the past several weeks that was radiating to both lower extremities. Due to his back pain, his neurologist ordered an MRI of the back, which showed a large cystic mass in the pelvic cavity, located postero-medially to the left and with thickened walls.

The patient was subsequently referred to the gastroenterology department for evaluation. Physical exam were unremarkable except for a mass in the posterior wall of the rectum on digital rectal exam. CAT scan of the pelvis was done showing a multi-loculated cystic lesion 16x9cm in size in the pre-sacral and in the retro-vesical area (Figure 1).

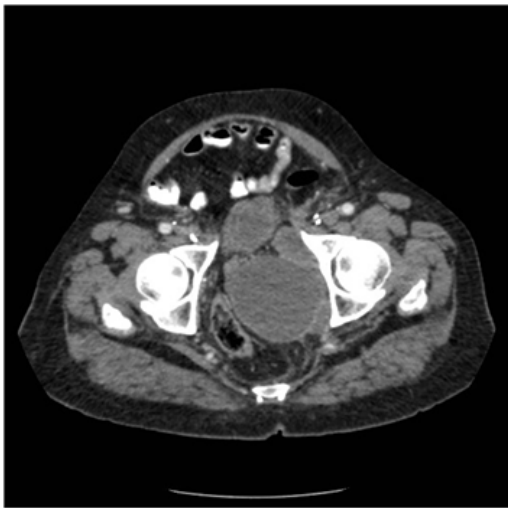

Figure 1 CT-Scan showing pre-sacral cystic lesion.

Blood studies for complete blood count; prostate specific antigen and hydatid serology were done and turned out negative. Due to the lack of a specific diagnosis, a rectal EUS was scheduled. Rectal EUS showed a large cystic anechoic lesion (Figure 2) located in the retro-rectal area with few septations and debris. After localizing the lesion, an FNA with a 22 gauge needle was done and a dark brownish fluid was aspirated (Figure 3). The fluid was sent for analysis and turned out to be hemorrhagic fluid in nature. At the end of the procedure, a total of 600ml of hemorrhagic fluid was aspirated resulting in almost total disappearance of the lesion and marked improvement in symptoms and relief of the low back pain.

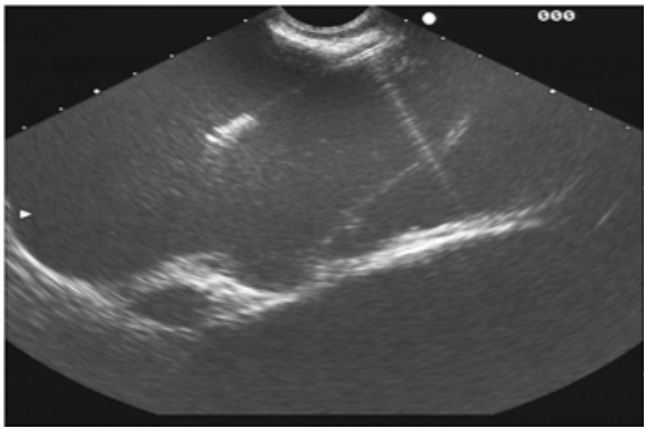

Figure 2 EUS image showing the tip of the FNA needle inside the cystic mass.

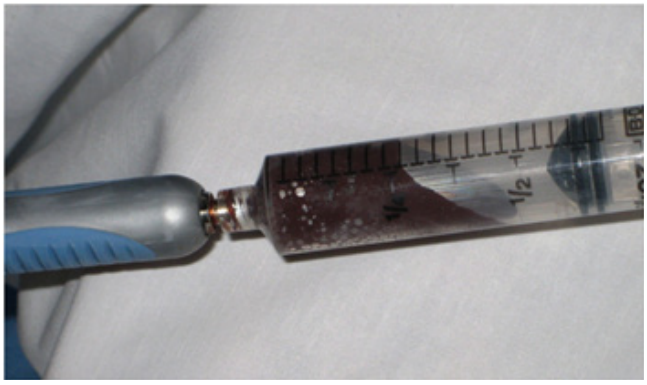

Figure 3 The dark-brownish fluid that was aspirated from the cystic lesion.

Discussion

Peri-rectal hematoma is a known yet rare complication of radical prostatectomy. Symptoms of a post-operative hematoma are usually related to anatomical disruption of the urethral anastomosis or to infection of the hematoma. Chronic constipation and back pain as a result of a large retro-rectal hematoma after a radical prostatectomy has never been reported in the literature.

EUS has been shown to be a safe and effective method in exploring the gastrointestinal tract and nearby structures. It has proven to be the test of choice for accurate imaging of gut wall and surrounding structures and its applications have grown over the years to include fine−needle aspiration of target lesions accessible from the gastrointestinal tract for diagnostic and therapeutic purposes.[12,13] In a large national survey, the risk of perforation with EUS was 0.03% and the risk of death was 0.002%.[14] In a study done by Al-Haddad et al, 15 patients with solid perirectal masses underwent EUS-FNA for diagnostic purposes where diagnosis was made in all of them with no complication rate.[15]

The real-time visual ability and maneuverability of EUS has made it a preferred modality of intervention for patients with pelvic collections.[5,6,16] This being said, pelvic hematomas that can develop as a complication of radical prostatectomy can therefore be drained and treated by this approach. Limitations to rectal EUS-FNA treatment of such lesions are mostly anatomical/positional such as a distance that is greater than 20mm from the gastrointestinal lumen or a proximal location that limits the maneuverability and access of the echo endoscope.

To our knowledge this case represents the first reported case where rectal EUS - FNA was performed on a rectal cystic mass for therapeutic intention, and with complete resolution of the symptoms being achieved directly post procedure. This proves that EUS-FNA is a valuable technique for the diagnosis and management of accessible abdominal masses and can eliminate the need for additional studies, surgery, or both which would prove to be cost effective.[17]

Acknowledgments

None.

Conflicts of interest

The authors declare there is no conflict of interests.

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None.

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