

Voiding Lower Urinary Tract Symptoms due to a Large Epidermoid Cyst of Mesorectum - A Rare Presentation

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ABSTRACT

Epidermoid cysts usually occur in the regions of face, neck, and trunk. Pararectal epidermoid cysts are rare with very few cases reported in literature. We present a case of 43-year-old male who presented to us with voiding lower urinary tract symptoms and constipation. He was diagnosed to have a large mesorectal cyst and underwent robot-assisted laparoscopic excision of the cyst which proved to be epidermoid cyst on histopathology.

KEYWORDS: Epidermoid cyst, lower urinary tract symptoms, mesorectum

INTRODUCTION

The retrorectal or presacral space is a clinically important region with numerous pathologies. An epidermoid cyst is a rare entity of cystic diseases found in the retrorectal region.^[1] It is mostly benign congenital tumor that develops due to misplacement of ectodermal tissue during embryogenesis. It is most commonly seen in women of reproductive age.^[2] Although they are mainly benign tumors, they have risk of infection, development into a fistula, or malignant degeneration.^[3,4] Symptoms are usually related to a mass effect on the rectum, the lower urinary tract, or infections.^[5-9] Due to malignant transformation, surgical excision remains the best treatment option.^[4]

CASE REPORT

A 43-year-old male patient was relatively healthy and only complained of constipation since last 3–4 years. Patient also complained of intermittency, poor flow, and hesitancy for the last 2 years. He had no history of frequency, urgency, nocturia, dysuria, hematuria, or pelvic pain. On digital rectal examination, patient had grade 1 enlarged prostate and boggy was felt at the finger tip of examining finger. Patient underwent abdominal ultrasound (USG), and incidentally was found to have a well-defined hypoechoic lesion measuring approximately 6 × 5.7 × 8.6 cm in left mesorectal fat

causing compression and displacement of the anorectal region to the right including posterior wall of urinary bladder and also prostate. Whole body FDG PET-CT scan revealed well-defined smooth thick-walled hypodense lesion in left mesorectal fat measuring 82 × 71 × 70 mm in diameter, causing right-side displacement of rectum and anterior displacement of urinary bladder. Magnetic resonance imaging (MRI) of the pelvis revealed a well-defined, smooth, and thick-walled abnormal signal intensity spherical lesion in the left mesorectal fat [Figure 1a and b]. All hematological and biochemical parameters were within normal limits. Preoperatively, the cystic mass was thought to be a rectal duplication, or epidermoid cyst. The patient underwent robot-assisted laparoscopic excision of mesorectal cyst. Intraoperatively large mesorectal cyst was noted measuring 10 × 10 cm in left side of mesorectum. The cystic mass was completely removed, and thick cheesy content was evacuated. Specimen was sent for histopathological examination. There was no intraoperative or postoperative complication. Macroscopically multiple gray brown cystic soft tissue pieces altogether measuring

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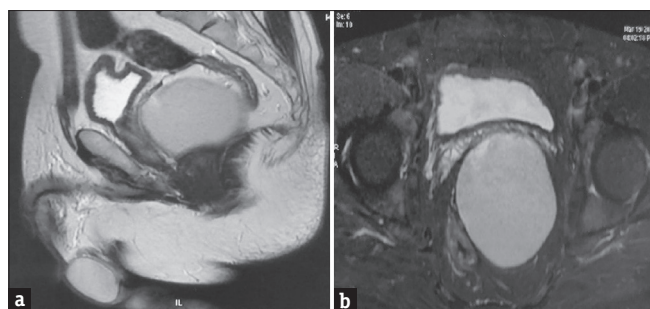


Figure 1: (a and b) MRI showing sagittal and transverse section respectively of a 82 × 71 × 70 mm lesion in the mesorectum causing right displacement of rectum and anterior displacement of urinary bladder

4.5 × 2.8 × 1 cm were received. On histopathological examination, sections revealed cyst wall lined by squamous epithelium and fibrous stroma with keratin flakes in the lumen. The histopathologic diagnosis was an epidermoid cyst [Figure 2a and b]. At 1-month follow-up, patient was relieved of constipation as well voiding symptoms as evidenced by normal uroflow parameters and nil residual post void residual urine.

DISCUSSION

The retrorectal space, also known as the presacral space, is situated anterior to the sacrum and coccyx and posterior to the rectum. Developmental cysts are found only rarely in the retrorectal region of adults, and they usually affect middle-aged women. There exact incidence is not known but assumed to affect approximately 1 in 40000 patients.^[3] According to their origin and histopathologic features, they are classified as dermoid/epidermoid cysts, enteric cysts (tailgut cyst and cystic rectal duplication), or neurenteric cysts.^[5]

Symptoms vary depending on the location, size, and origin of the mass. Compression symptoms include constipation, painful defecation, or lower abdominal pain (rectum), as well as dysuria or urinary frequency (lower urinary tract).^[6-9] Our patient had symptoms of constipation along with voiding LUTS that indicated compression over the rectum and bladder neck and urethra, respectively. Infection, bleeding, and malignant degeneration are also possible complications.^[6]

Several imaging modalities such CT, MRI, ultrasonography, endoscopy, and barium enema, are available to identify and diagnose the retrorectal cysts. CT, MRI, and ultrasonography of whole abdomen and pelvis were used to establish a preoperative differential diagnosis in our patient. The CT scan of an epidermoid cyst shows discrete, homogeneous, thin-walled lesions with fluid density. CT also demonstrates anterior rectal displacement and the absence of associated calcifications. Furthermore, on MRI, T1W images of

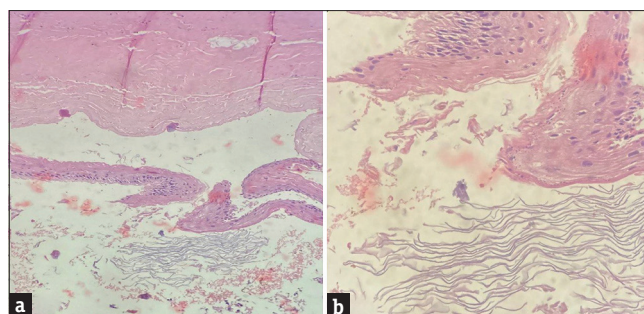


Figure 2: (a and b) Hematoxylin and Eosin stained image at 20× and 40× magnification respectively showing cyst wall lined by stratified squamous epithelium with presence of keratin flakes with occasional presence of inflammatory cells

epidermoid cysts show low-intensity signals, whereas T2W images show high-intensity signals. The role of preoperative pathological diagnosis is debatable because the majority of cysts are benign and complete surgical removal is the ultimate goal of management.^[10]

Complete surgical excision of epidermal cysts and other retrorectal tumors is the main therapeutic option. Surgery is recommended when signs and symptoms suggest compression of the surrounding structures and malignant transformation, or to prevent common complications such as infections and fistula formation. These cysts are traditionally removed either anterior transabdominal (laparotomy) or transperineal methods. Minimally invasive procedures, such as laparoscopic and robotic surgery, have been adopted safely in recent years.^[11]

Histopathological examination of the lesions is important in both confirming the diagnosis and distinguishing benign from malignant tumors. Epidermoid cysts and dermoid cysts both have stratified squamous epithelia linings, but dermoid cysts also have skin appendages.

CONCLUSION

The uncommon occurrence of an epidermoid cyst in the retrorectal space requires early diagnosis and complete surgical excision. This is important in order to reduce the risk of recurrence and serious complications such as compression symptoms, infection, and malignant transformation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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