



CASE REPORT

Pilimiction: A Rare Presentation of Ovarian Dermoid

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Introduction

Dermoid cysts are benign tumors which account for about 10–20% of ovarian tumors. They are usually asymptomatic and are often detected incidentally during a pelvic examination, on imaging or when they become symptomatic due to complications such as torsion, infection or rupture. Perforation and adhesion of dermoid cyst into adjacent organs is a very rare complication. We report 2 cases of ovarian dermoid perforating into urinary bladder presenting with passage of hair in urine.

Case Report

Case 1

A 26-year-old unmarried female presented to our OPD with chief complaints of passage of hair in urine, passage of turbid urine and recurrent UTI for past 6 months. She had undergone laparotomy with bilateral cystectomy 1.5 years back at a hospital in her hometown. Intraoperatively the cysts were found to be densely adherent to bowel and thus

were only partially removed. Histopathology was suggestive of mature cystic teratoma.

On general examination, she was average built with a BMI of 20 kg/m². On abdominal examination, there was a transverse scar of previous laparotomy with no palpable mass. All her blood investigations were normal, and urine culture was sterile.

Ultrasound abdomen/pelvis revealed a 3.9 × 3.6 cm hypoechoic cyst with echogenic content in right ovary, and a similar 3.2 × 3 cm cyst was seen in left ovary. 5 × 5 cm irregular echogenic mass with multiple scattered echogenic contents was seen in urinary bladder. Contrast-enhanced computed tomography (CECT) abdomen/pelvis showed a right ovarian cyst with fat density and areas of calcification invading into urinary bladder. Left ovary had a similar cyst. In the urinary bladder, a mass with fat urine level and calcifications was identified (Fig. 1).

Cystoscopy was performed which showed a mass arising from posterior wall of urinary bladder with sebaceous material and hair floating in urine.

Patient underwent laparotomy, and intraoperatively bilateral ovarian dermoid cysts were found adherent to the bowel. Right ovarian dermoid cyst was seen invading into posterior wall of urinary bladder. Bilateral dermoid cystectomy with cystostomy and intravesical dermoid removal with bladder repair was performed under general anesthesia.

Postoperative course was uneventful. Patient was discharged on post-op day 5. Foleys catheter was removed after 21 days. Histopathology revealed a mature cystic teratoma.

Case 2

A 50-year-old P2L2 perimenopausal female presented with complaints of passage of hairs and pus-like material in urine for past 4 months. She had undergone cholecystectomy 7 months back, and histopathology showed invasive adenocarcinoma of gall bladder with lymph node involvement. She received 3 cycles of chemotherapy which was completed 4 months prior to her presentation.

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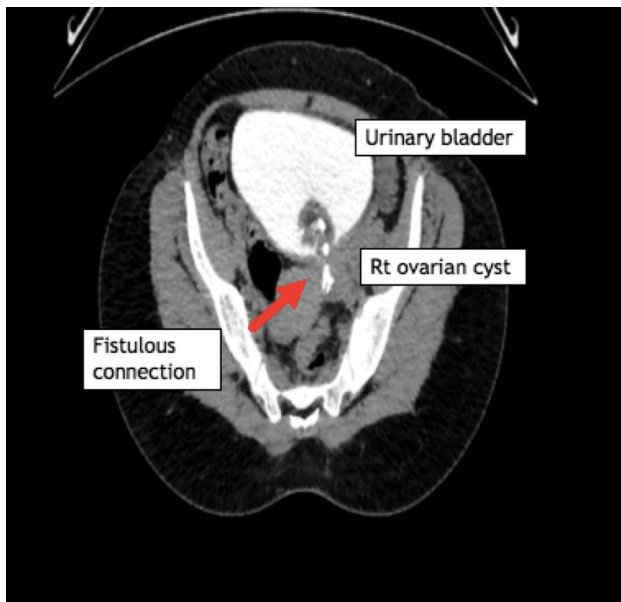


Fig. 1 CECT showing right ovarian cyst with fat density and calcification invading into urinary bladder

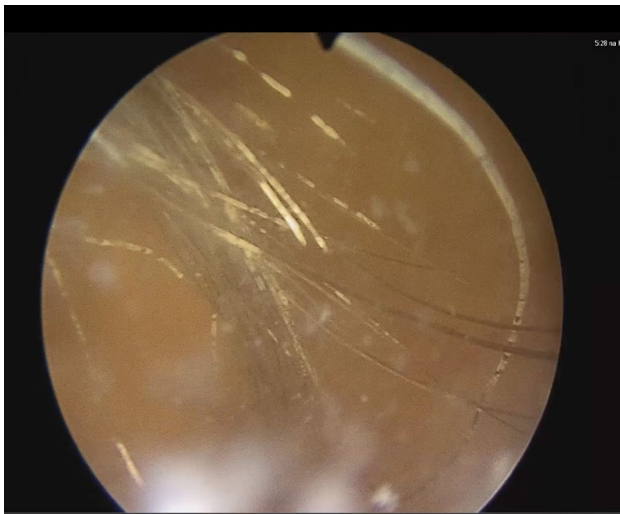


Fig. 2 Cystoscopy image showing tuft of hair in urinary bladder

Ultrasound and CECT abdomen/pelvis revealed a 12 × 10 cm homogenous left ovarian mass with anterior part of mass communicating with urinary bladder. Cystoscopy revealed external compression at dome, and a mass of hair was seen coming out through fistulous tract (Fig. 2).

Patient underwent laparotomy, and intraoperatively the ovarian mass (tufts of hair and sebaceous material) was densely adherent to the bladder with fistulous connection. Total abdominal hysterectomy with left salpingo-oophorectomy with cystostomy, intravesical dermoid removal and bladder repair was performed under general anesthesia.

Patient was discharged in stable condition with catheter on post-op day 6. Histopathology revealed mature cystic teratoma.

On post-op day 8, she presented again with abdominal distension, decreased urine output and passage of blood stained discharge through suture line. Abdominal pigtail insertion revealed collection of urine in abdomen which was drained. CT urography showed a fistulous connection between bladder and abdominal wall. Patient was managed conservatively and discharged after 22 days with resolution of symptoms.

Discussion

Among the ovarian teratoma, the mature cystic teratomas are the most common benign germ cell tumor, mostly occurring in the reproductive age group. Usually, they are asymptomatic and symptoms develop when they grow in size or at times may present with complications such as torsion (15%), rupture (1–4%), rarely malignant transformation (1–2%) and infection (1%) [1]. The occurrence of its invasion or rupture into adjacent viscera is very rare (< 1%) with bladder being most common site. Patients may present with complaints of passage of hair in urine, dysuria, recurrent urinary tract infection or urinary retention due to blockage by materials of dermoid; however, passage of hair in urine also known as pilimiction is pathognomic. Both of our patients presented with pilimiction.

The exact cause of communication between dermoid and adjacent viscera is still not clear, but some authors are of opinion that trauma, torsion, infection, chronic friction or pressure leads to leakage of the contents and fistula formation [2, 3]. In our first case, since there was a history of previous partial dermoid cystectomy, leakage of contents from the residual cyst could have led to fistula formation. In the second case, though exact cause of fistula formation could not be ascertained, chronic friction could have contributed. Definitive diagnosis of invasion into bladder is made on cystoscopy or laparotomy, but with advances in imaging it is possible to diagnose this condition preoperatively by ultrasound or CT scan as in our cases. CT scan is the preferred imaging modality because it is more sensitive in detecting fat and thus can clearly identify the dermoid cyst and its invasion into bladder.

The removal of the mass with bladder repair is the definitive treatment. In most of the previously reported cases, unilateral salpingo-oophorectomy with partial cystectomy (partial removal of bladder mucosa) was done [4, 5]. In our first case, since patient was young and normal, ovarian tissue could be identified, and bilateral cystectomy was performed. Bladder repair was performed without partial cystectomy in

both our cases as the involved portion of bladder wall was not necrosed and inflamed.

Histopathological examination of the mass helps in excluding any malignant transformation. In both of our cases and most of the other reported cases, histopathology revealed a benign, mature cystic teratoma. Only in one case, malignant transformation was identified [5].

Conclusion

Ovarian dermoid cysts are benign tumors with an indolent course, but rarely they may invade into the urinary bladder. A correct preoperative diagnosis and planned surgery can relieve the patient of this rare yet dreadful condition.

Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

Informed Consent Informed written consent was obtained from the patients.

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