

A Rare case of benign dermoid cystic teratoma of ovary infiltrating urinary bladder

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SUMMARY

Ovarian cystic teratomas are one of the commonest benign, pelvic tumors. However, its infiltration into the urinary bladder is not frequently reported. We present a rare case of benign dermoid cystic teratoma of ovary infiltrating urinary bladder. This was observed in a 40-year-old multiparous woman at department of Gynaecology. Ultrasonography of her abdomen showed an ill-defined heterogenous lesion (3.6x2.8 cm) in the left adnexa of the uterus with calcific and cystic areas within; adherent to the base of the bladder suggestive of inflammatory or neoplastic tubo ovarian pathology. The cystoscopic observations confirmed the infiltration of posterior wall of the urinary bladder by the tumour with e/o of tufts of hair and calcification. CT scan of abdomen showed a heterogenous lesion in the left adnexa of uterus with calcification, haemorrhage and cystic areas within, with poorly defined fat plane with adjacent urinary bladder. In addition, multiple cystic lesions in the right adnexa of uterus with linear calcification in the urinary bladder with diffuse thickening of the bladder wall was also observed. Histopathology reports confirmed the tumour to be a benign cystic teratoma of left ovary with adherence and rupture into the bladder with no evidence of malignancy. During surgery, a 4x4 cm solid tumour was found towards the lateral end of the ovary infiltrating the bladder above and posteriorly. The bladder was opened up and the part of the bladder wall 6x6 cm size with tuft of hair and yellowish white cheesy material, which included the base and periphery of tumour was excised and bladder wall repaired in layers after placing a Malecot's catheter.

Key words: pelvic teratomas, surgical approach to ovarian cysts, bladder infiltrating tumors, pelvic neoplasia

Introduction

Ovarian cystic teratomas are one of the commonest benign, pelvic tumors that are easily detected using pelvic ultrasonography (1). It accounts for approximately 20% of adult ovarian tumors and about 50% pediatric ovarian tumors (2). The cases of benign cystic teratoma of ovary infiltrating into the urinary bladder are rare. We report here on such case observed in a 40-year-old lady.

Case report

A 40-year-old lady, admitted to our hospital with complaints of menorrhagia, hematuria and lower abdominal pain since last 1 year. She had also noticed passage of hair in urine. However, there was no history of passage of sebum in the urine. She is P3L3 with all full term normal vaginal delivery 15 years ago and had also undergone tubectomy. Her menstrual cycles were reported to be 3/28-30 days with heavy flow with passage of clots and she also gives a history of dysmenorrhoea. Her blood investigations were within normal limits. Urine showed 25 to 35 pus cells. Urine culture and sensitivity showed >1X10⁵ CFU of E coli. On examination, she was pallor +ve, normotensive, no lymphadenopathy and her systemic examination was normal. There was no mass per abdomen. Per speculum examination showed an un-healthy uterine cervix with chronic cervicitis. Per-vaginal examination revealed retroverted bulky uterus. Mass was felt in left fornix with restricted mobility and was tender. However, right fornix was free and non-tender.

Ultrasonography of the abdomen showed an ill-defined heterogenous lesion (3.6x2.8 cm) in the left adnexa of the uterus with calcific and cystic areas within; adherent to the base of the bladder suggestive of inflammatory or neoplastic tubo ovarian pathology. It also revealed the presence of a large vesical calculus of 3.5 cm, mildly bulky uterus with inhomogenous echotexture and enlargement of right ovary.

In view of bladder finding, the cystoscopy was done. It showed the evidence of infiltration of posterior wall of the urinary bladder by the tumour with e/o of tufts of hair and calcification. In addition, an area of linear calcification was seen within the bladder (Figure 1).

CT abdomen was taken to rule out the involvement of other parts. CT scan of abdomen showed a heterogenous lesion in the left adnexa of uterus with calcification, haemorrhage and cystic areas within, with poorly defined fat plane with adjacent urinary bladder. In addition, multiple cystic lesions in the right adnexa of uterus with linear calcification in the urinary bladder with diffuse thickening of the bladder wall was also observed. (Figures 2 and 3)

Other investigation Results: tumour markers: AFP-0.9IU/ml.

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Figure 1: Cystoscopic image of the bladder showing the infiltrated dermoid cyst with hair follicles.

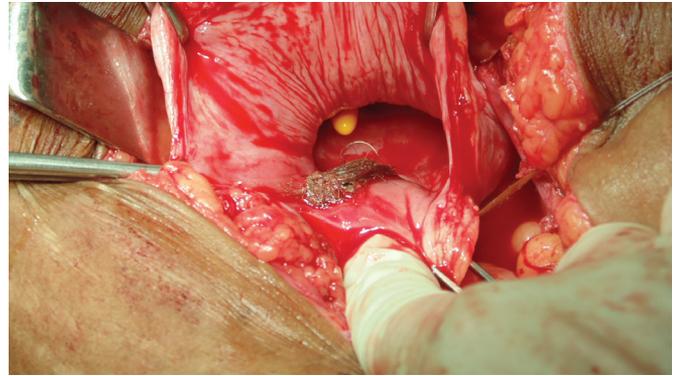


Figure 5: Picture showing opened part urinary bladder with infiltrating cyst with tuft of hair and yellowish white cheesy material.

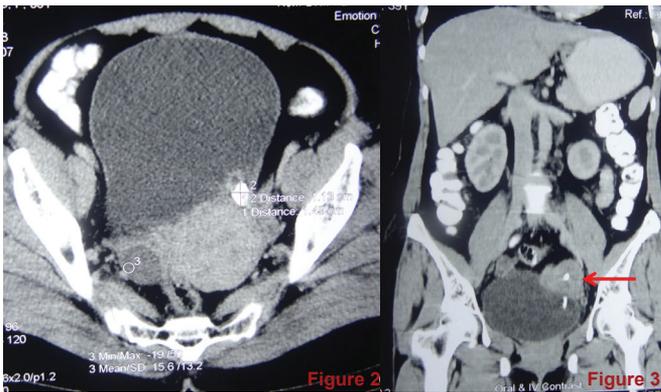


Figure 2: Axial CT scan showing heterogenous lesion in the left adnexa of uterus

Figure 3: CT scan showing heterogenous lesion in the left adnexa of uterus with calcification, haemorrhage and cystic areas within, with poorly defined fat plane with adjacent urinary bladder.

CA-125 -4 U/ml, LDH-181 U/L, instead of a serum β HCG a UPT was done which was negative. Intravenous pyelogram showed linear vesical calculus 3.6cm, an area of calcification in the left side of the pelvis 15x12mm outside the urinary bladder, abutting the bladder wall. Both kidneys and ureters were normal.

After proper preoperative evaluation and treating urinary tract infection, she was taken up for surgery. Intraoperatively, the uterus was bulky, a 4x4 cm solid tumour was found towards the lateral end of the ovary infiltrating the bladder from above and posteriorly. The bladder was opened up and the part of the bladder wall 6x6 cm size with tuft of hair and yellowish white cheesy material, (Figures 4 and 5) which included the base and periphery of tumour was excised and bladder wall repaired in layers after placing a Malecot's catheter. Urinary bladder double J stenting was done. This was followed

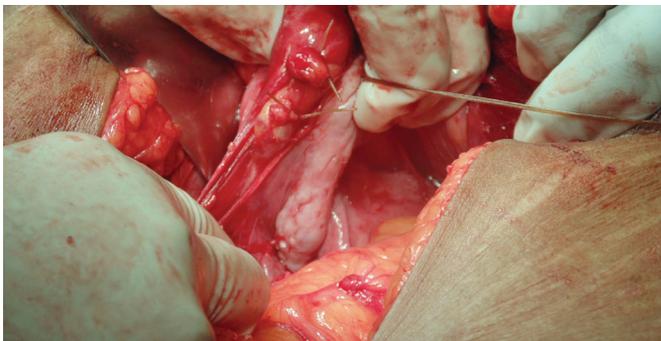


Figure 4: Picture showing the 4x4 cm solid tumour on the lateral end of the ovary.

by total abdominal hysterectomy with left salpingo-ovariotomy and right salpingo-oophorectomy.

Histopathology report revealed the tumour to be a benign cystic teratoma of left ovary with adherence and rupture into the bladder with no evidence of malignancy, with adenomyosis of uterus, chronic cervicitis and follicular cysts of right ovary. (Figure 6)

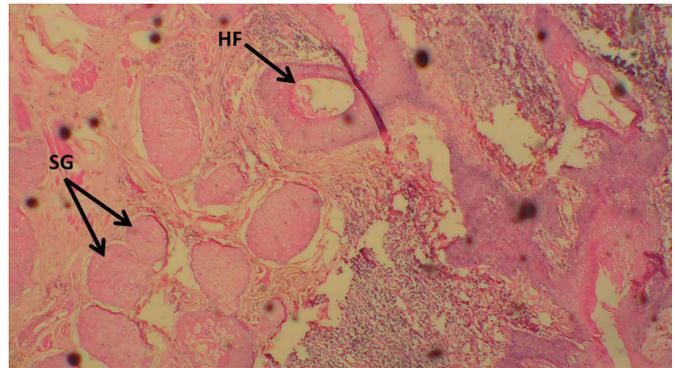


Figure 6: Photomicrograph of hematoxylin and eosin stained section through the urinary bladder in the region of infiltration showing hair follicles and sebaceous glands.

The postoperative session was uneventful. The double J stent was removed after 1 month and bladder drainage was continued. Suprapubic catheter was removed after 45 days.

Discussion

Dermoid cyst is a benign germ cell tumour. It is reported in patients of 25–45 years of age. However, in about 1.7% it is reported to be malignant especially in women of over 40 years age. In most cases, they are found to be unilateral and in about 10% of cases they are bilateral. Structurally, they are reported to be unilocular with smooth surface containing hair and sebaceous substances. There are also reports of teeth, bone, cartilage, thyroid tissue and bronchial mucous membrane or squamous epithelial lining found in its wall. (3) According to Hakim and Abraham, the term dermoid cyst is a misnomer as it contains tissues from all the three germ cell layers. (3) Dermoid cysts arise from totipotent cells. Dermoid cysts in ovary are considered to be the second most common location of such cysts after sacrococcygeal teratomas. (4)

Some of the complications of ovarian teratoma are torsion, rupture, infection, and malignant change though the last one is rare. (4) However, due to its thick wall, the spontaneous rupture of the cyst is less common (5) and it has been also reported that its rupture into hollow organs like urinary bladder, small

bowel rectum, sigmoid colon, and vagina is extremely rare. (6) There is a report by von-Walter and Nelken where a benign cystic ovarian teratoma fistulated into the small and large bowel. (7) It can be noted here that the infiltration of the ovarian teratomas into the urinary bladder as observed in the present case is a very rare phenomenon and as less as about 28 cases only were reported till 1955 according to Tancer et al. (8).

In managing the cases of dermoid ovarian cysts, the surgical approach remains very important especially if the patient is young women in whom fertility has to be retained (9). Nowadays, the most preferred surgical approach is laparoscopy, but there are good number of them who consider a minilaparotomy as the preferred procedure (10). Anyway, the complete enucleation of the masses avoiding rupture during surgical procedure is very essential as recurrence of a dermoid cyst may sometimes take place due to the incomplete enucleation (9). In the present case, we preferred an open surgery as the cyst was infiltrating into the bladder making the case complicated. As explained in the case report, the bladder was opened up and the part of the bladder wall 6x6 cm size with tuft of hair and yellowish white cheesy material was removed to ensure the total enucleation.

Conclusion

We would like to conclude that though the dermoid ovarian cysts are common, its infiltration into the urinary bladder is rare. Complete enucleation of such cysts is essential to prevent the recurrence.

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