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Case Report

Serous cystadenoma of the broad ligament mimicking an ovarian cyst: a diagnostic challenge

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ABSTRACT

Serous cystadenomas are epithelial tumours which are commonly seen in ovaries. Its occurrence in broad ligaments is extremely rare. The symptoms, signs and ultrasonic appearance of a broad ligament lesions may be difficult to distinguish from an ovarian tumour. So, it is important to keep a differential diagnosis of an extra ovarian lesion in cases of an adnexal mass.

Keywords: Broad ligament, Serous cystadenoma

INTRODUCTION

The broad ligaments are double layers of peritoneum that covers the neurovascular supply to the uterus[1]. Secondary tumours arising elsewhere in the abdomen and pelvis is common in broad ligament[3]. But primary tumours of broad ligaments are rare[4]. Due to the close proximity of the ovary, the symptoms, clinical findings and imaging findings can be challenging. We report a case of broad ligament serous cystadenoma, which presented as an adnexal mass and meticulously managed in our department.

CASE REPORT

A 43 years old parous woman presented to Gynaecology outpatient department with complaints of abdominal distension and discomfort which progressively increased over past 2 years. She had no abdominal pain. She had normal bowel and bladder habits with no complaints of loss of weight or appetite. She had regular menstrual cycles with normal flow. She had no dysmenorrhoea or dyspareunia or fever. She had no significant surgical history other than bilateral tubal ligation for sterilization. She is a known case of hypertension on regular medications. There is no significant family history. On examination, she was hemodynamically stable with normal central nervous system, cardiovascular system and respiratory system examinations. On per abdomen examination, abdomen was distended with a cystic mass of 24 weeks size predominantly occupying the left side of the abdomen, which is non tender to touch. The mass was smooth, mobile from side to side. Speculum examination showed erosion in cervix. On bimanual examination, uterus retroverted with bulky in size and felt separately from the mass. Left adnexa was fully occupied by the cystic mass and Right adnexa was normal.

Initial blood investigation showed Hb 13.1g %, PCV-38%, Total Count-7600/cumm, Platelet- 2.4 lakhs/mm. Pap smear was negative for intraepithelial malignancy. Ultrasonogram of abdomen and pelvis showed a large thin-walled cystic lesion approximately 20×19 cm with no solid component in the left adnexa which was separate from the uterus and a small intramural fibroid of size 3.9×3.9 cm in the uterus. Right ovary normal. Hence tumour markers like CA-125, CEA and CA 19-9 sent and all reports were

within normal limits. MRI pelvis done and it showed a large (18.3×25.9×24.2 cm), well defined, smoothly marginated, uniloculated abdominopelvic cystic lesion with smooth enhancing wall and thin partial septation, separate from the uterus and closely abutting the left ovary, right ovary normal- likely to represent cystic lesion of left ovarian origin- ORADS MRI 3.

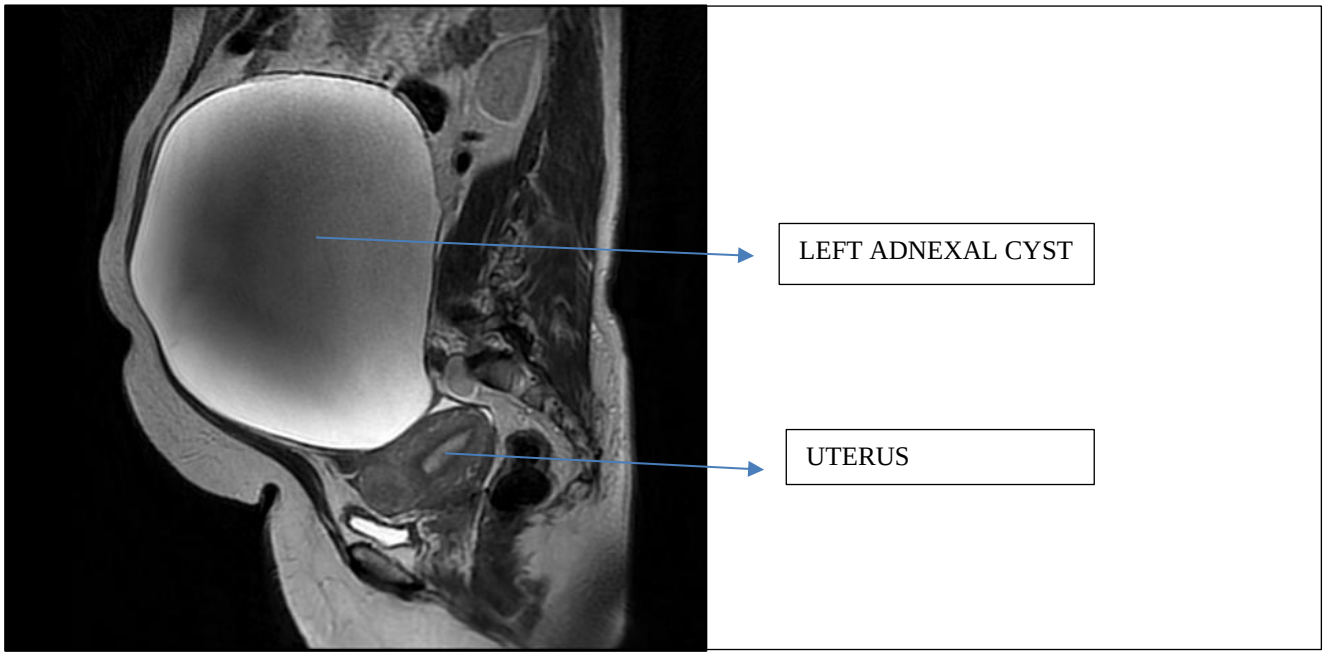

Figure 1: MRI pelvis showing large adnexal cyst which is separate from the uterus.

Hence a provisional diagnosis of benign ovarian cystic lesion was made and she was posted for staging laparotomy. Intraoperatively, it revealed a smooth walled cyst arising from the left broad ligament, separate from the ovary. Grossly the cyst measured 25x25x30cms. It was difficult to deliver the cyst in toto. Hence, a small nick was made on the cyst. Serous contents drained and cyst was excised out separately. Uterus was approximately 10 weeks size and bilateral ovaries appeared grossly normal. Then the procedure was proceeded with total abdominal hysterectomy and bilateral salpingo-opherectomy.

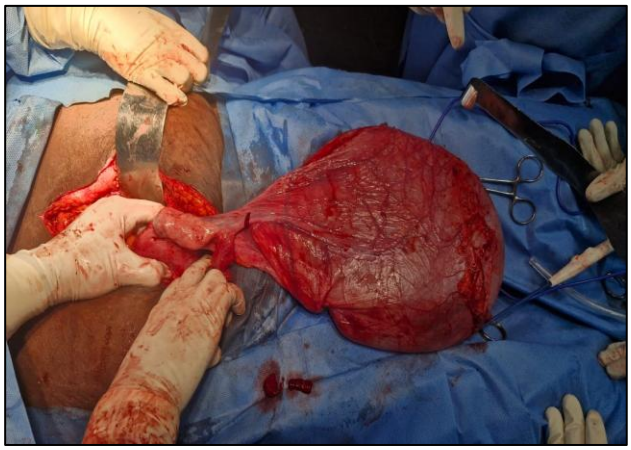

Figure 2: Intra operative image showing cyst arising from broad ligament.

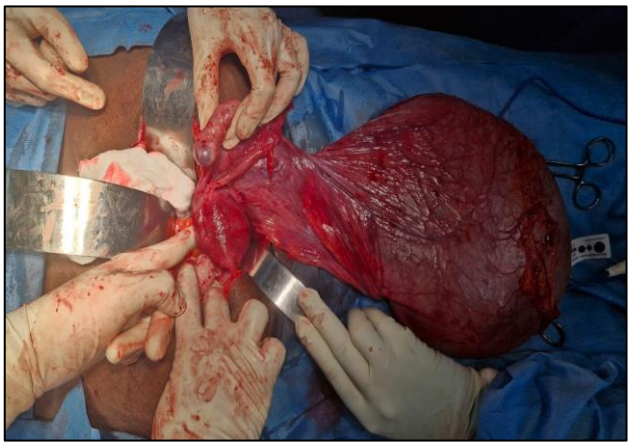

Figure 3: Broad ligament cyst with grossly normal appearing uterus and ovaries.

Post operatively she was managed with antibiotics, analgesics, thromboprophylaxis and other supportive measures. Continuous bladder drainage was kept for 36hours. Her post-operative period was uneventful and she was discharged on POD-4 with a healthy, healing wound and normal bowel and bladder habits.

On follow up after 6 weeks, her abdomen was soft and wound was healthy with normal bowel and bladder habits. Histopathology report revealed separately received cyst being serous cystadenoma with no evidence of atypia or malignancy. Cervix had chronic cervicitis and uterus had

secretory endometrium with a leiomyoma. Bilateral fallopian tubes and ovaries were unremarkable.

DISCUSSION

Benign serous cystadenomas of the broad ligament are rarest epithelial tumours of broad ligament. Despite their rarity, the differential diagnosis of the tumours varies, which can be divided in epithelial tumours of Mullerian type, mesenchymal and mixed tumours, miscellaneous tumours, tumour-like lesions, and secondary tumours.[9] Serous cystadenoma of the broad ligament are epithelial tumours of mullerian type arising from the remnants of the mullerian ducts within the broad ligament. Most of these are unilateral unilocular cysts up to several diameters in diameter.[3] 10% of all adnexal masses are broad ligament cysts.[10] Broad ligament cysts tend to arise at a younger age than ovarian cysts.[3] These cysts can be benign, borderline and malignant same as in case of an epithelial ovarian tumors.[2] Most neoplasms in this region, whether benign or malignant, usually present clinically with insidious and nonspecific symptoms, being often only incidentally discovered during a gynaecological examination for lower abdominal discomfort or pain.[5] Preoperative diagnosis of a broad ligament cyst is challenging as these cysts mimic ovarian cysts and para-ovarian cysts. To be considered tumour from the broad ligament, it must occur on or in the broad ligament, but be completely separated from, and in no way connected, with either the uterus or the ovary.[6]

Best investigation to assess an adnexal cyst is ultra sound scan (USS) due to its accuracy, availability and low cost.[2] But magnetic resonance imaging (MRI), with its multiplanar imaging capabilities, can be extremely useful for differentiating broad ligament tumours from masses of Soption for this kind of large lesion.[2] Recurrence is rare. Laparoscopy and Laparotomy can be tried. Definitive confirmation of the broad ligament cyst is only by intraoperative assessment and histopathological examination. As the histopathological report came as a benign lesion, she does not need any post-operative treatment and follow up. If the report came as papillary cystadenoma, possibility of Hippel-Lindau disease should be excluded.[7,8]

CONCLUSION

Though primary tumours of broad ligaments are rare, it is always better to keep a differential diagnosis of the same in cases of adnexal lesions. Preoperative imaging and careful intraoperative assessment and histopathological confirmation ensures accurate diagnosis and management.

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