

Case Report

RARE CASE OF TORSION OF BENIGN SEROUS CYSTADENOMA WITH EMBEDDED MATURE CYSTIC TERATOMA IN ITS WALL IN A POSTHYSTERECTOMISED WOMAN

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ABSTRACT

A case of 60-year-old post hysterectomies woman presented with complaints of mass per abdomen & pain in the lower abdomen since 4 months. On abdominal examination there was ovarian mass of 22 weeks, with tenderness present in the right illac region. On ultrasound, right adnexal (dermoid cyst) was found which encompassed the right lower abdomen. At laparotomy, a totally gangrenous, mass of 19x16x6 cm with torsion was encountered, and patient underwent right sided oophorectomy. Histopathology report disclosed a benign serous cystadenoma with embedded mature cystic teratoma in its wall. This is one of the rare cases being encountered in our hospital as well as in the literature, an epithelial cell neoplasm with germ cell contents at its boundary and torsion of ovarian pedicle in post hysterectomy woman.

Keywords: *Benign Serous Cystadenoma, Cystic Teratoma*

INTRODUCTION

The incidence of ovarian tumour is 1—3%. Serous cyst adenoma is benign epithelial ovarian tumour with 40% of incidence of the ovarian tumour. Commonest benign adnexal mass is a cystic teratoma followed by a cyst adenoma. Serous cyst adenomas can be bilateral in 30% of the cases. Torsion and rupture of the cyst are the common and dreaded complications. Rupture of the cyst can be spontaneous or following increased intracystic pressure due to torsion¹.

Mature cystic teratoma (MCT) is the most common germ cell tumor of the ovary in women of reproductive age. Clinical characteristics of this tumour have been well documented, and about 20% of women with mature cystic teratoma experience complications, such as torsion, rupture, infection, and malignant transformation. Ovarian torsion is a common complication and constitutes a surgical emergency, and the rate of torsion has been reported to range from 12.9% to 15% in patients with teratoma (Kyung *et al.*, 2009; Artunc *et al.*, 2013). Torsion is common in tumour having moderate size, preferably with round contour, moderate weight as desmoids cyst due to high fat content, free mobility, long pedicle. The predisposing factors for torsion are trauma, violent physical movements, and intestinal peristalsis. Furthermore, ovarian torsion accounts for 3% of cases of acute abdominal pain that present at emergency departments (Lentz *et al.*, 2012). Delay in recognition and treatment of torsion can have serious consequences such as peritonitis and even death (Sasaki *et al.*, 2013).

CASES

A 60 year old multifarious (P5L5) woman presented with 4 month history of abdominal mass, lower abdominal pain since 1 week. She had undergone vaginal hysterectomy for uterine prolapsed 13 yrs ago. Her Physical examination revealed mass of 22 weeks size, occupying the suprapubic & right iliac region of the abdomen, tenderness was present in right illac region of abdomen, mass was firm in consistency with intermittent cystic areas, mobile in transverse direction whereas vertical mobility restricted, lower border could not be made out. Vaginal examination revealed ovarian mass more on the right side of the fornice.

An ultrasound examination of the pelvis showed a right adnexal cyst of 15cm x 10cm x 5cm (dermoid cyst), with absent uterus (post hysterectomy status) and normal left ovary. Contrast-enhanced computed

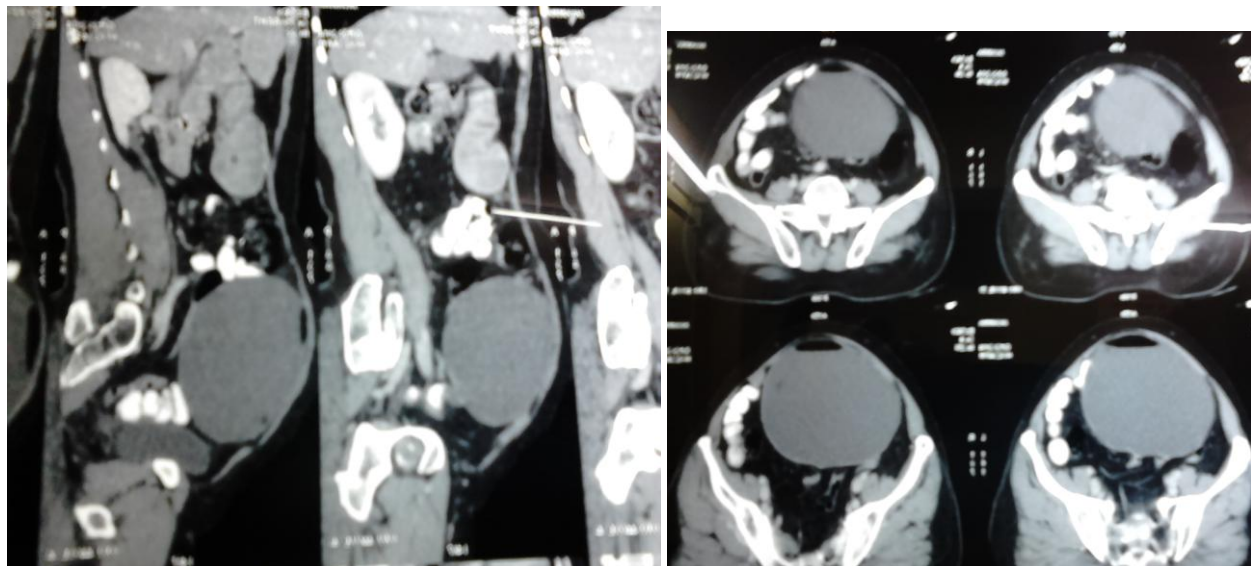
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tomography (CT) scan of abdomen, and pelvis showed right cystic teratoma of ovary (dermoid cyst), thin walled with thin septations with multiple mural nodules & fat component with evidence of peripheral calcification. There was no ascites. No significant lymphadenopathies in abdomen and pelvis were noticed.

A chest radiograph (X-ray) showed no evidence of pulmonary nodules. Laboratory tests showed slightly increased levels of CA-125 of 38U/mL.

All other laboratory tests including complete blood count (CBC), renal, hepatic and coagulation profiles, alkaline phosphatase, were within normal ranges. Provisional diagnosis of right ovarian neoplasm was made and laparotomy was done.

Operative findings showed a right ovarian tumour, which was gangrenous, reddish, smooth surface mass with intact capsule measuring 19x16x6cm, with torsion (3 rotations of pedicle) was noted. Left ovary was normal. There was no ascites. Right sided oophorectomy was done.



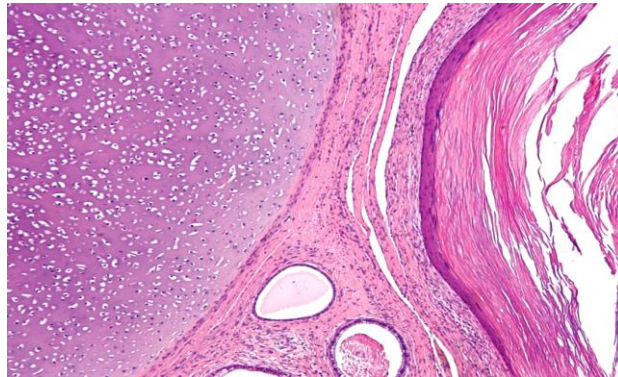
CECT picture showing ovarian mass occupying lower abdomen



Intraoperative picture showing torsion of ovarian tumour Tumor specimen

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Histopathology Report



Histopathology of Specimen

Specimen consists of ovarian tumour (cyst) measuring 19x16x6 cms. External surface appears smooth. Cut surface showed-unilocular cyst with smooth inner lining filled with hemorrhagic serous fluid and focal areas of thickening measuring 4x4cm. cut surface of thickened area showed- pultaceous material with hair along with cartilage. Microscopy showed large cystic tumour made up of fibrous wall lined by flat epithelium. Sections from thickened area shows bony fragments along with keratinising squamous epithelium, sebaceous gland in lobules, hair follicles & mature neural tissue suggestive of benign serous cyst adenoma with an embedded mature cystic teratoma in the wall.

DISCUSSION

In a study conducted by Abbott *et al.*, in 2001, Ovarian torsion –a fifteen year review, results suggest that incidence of ovarian torsion in post hysterectomy status is 7% (n=87). Thus this case reported with post hysterectomy torsion of huge ovarian cyst of 19x16cm stands out to be a rare case⁶.

Ovarian epithelial tumors comprise about half of all ovarian tumors, accounting for about 40% of benign tumors. Benign serous tumors include cystadenomas, adenofibromas, cyst adenofibromas and surface papillomas. These tumors are common, accounting for about 25% of all benign ovarian neoplasms and 58% of all ovarian serous tumors. The serous tumors are bilateral in about 10% of cases, of ovarian serous tumour about 70% are benign, 5-10% have borderline malignant potential and 20- 25% are malignant depending largely on the patient's age. They tend to be multilocular but unilocular serous cystadenomas are not uncommon. A study in to the rate of ovarian torsion occurrence in patients with a history of hysterectomy and the culpability of disturbing the anchoring system of the ovary is the mechanism of this acute misfortune. The precipitating factor for the torsion is explained by the haemodynamic theory, that the predisposing factor initiates slight axial rotation of the pedicle causing venous occlusion and partial arterial compression and these intermittent forcible arterial pulsation causes further axial rotation until it is complete. Partial rotation may often untwist spontaneously but if complete torsion of few turns occurs, there is obstruction of both arteries and veins; as a result there is intense venous congestion with extravasation of blood inside the cyst. Ovarian torsion usually presents with acute pain abdomen and the diagnosis is done by Doppler ultrasound and treatment is doing emergency laprotomy and salpingo-oophorectomy of the ovarian torsion. Management of ovarian cysts depends on the patient's age, the size of the cyst and its histopathological nature. Conservative surgery like ovarian cystectomy and salpingo-oophorectomy is adequate for benign lesions in young woman, and definitive surgery to those women who has completed their family.

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