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Case Report

Giant degenerative subserous leiomyoma simulating an ovarian cyst, a diagnostic conundrum: a case report

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ABSTRACT

Leiomyomas are benign tumours of uterus and classified by their location in the uterus- submucosal, intramural, subserous. Uterine leiomyoma can have variable presentations. Pedunculated big subserous fibroids may outgrow their blood supply, undergo degenerative changes and may present as an ovarian mass. We would like to present a case of such variant which presented as a huge ovarian multiloculated cyst on MRI, but final diagnosis after histopathological examination concluded it to be leiomyoma with secondary degenerative changes. Giant degenerative fibroid might present as an ovarian mass which poses challenge in diagnostic course. This may confound with complex ovarian cyst on radiological modalities. Diagnostic certainty can be achieved only by skilful intraoperative examination and histopathology.

Keywords: Subserous leiomyoma, Cystic degeneration, Hyaline degeneration, Ovarian mass, Uterine fibroids

INTRODUCTION

Leiomyomas are benign tumours that originate in the myometrium classified by their location in the uterus.[1] Most patients are asymptomatic. However, it can present with symptoms of excessive bleeding, dysmenorrhoea, pressure symptoms and may lead to subfertility and recurrent miscarriages.

CASE REPORT

An unmarried young patient of 29 years presented with pain abdomen and abdominal distension over lasting 6 months, no difficulty in defecation and micturition. Her last menstrual period was on 10/6/21, previous cycles were regular with average flow and moderate pain. On examination patient's vitals were normal. Per abdomen examination: a soft, smooth mass of 34-36 weeks palpable, which was mobile not fixed with abdominal wall, per speculum and per vaginal examination-avoided in a view of unmarried patient.

Pelvic sonogram suggestive of anteverted uterus, ET-8mm, bilateral ovaries not separately visualised, evidence of large well defined complex solid-cystic mass lesion measuring approximately 113×170×270 mm noted arising from the pelvis and extending upto the upper third of mid abdomen. Evidence of internal vascularity noted in the solid component internal septations and internal echoes within the few cystic component of the lesion probably of ovarian origin. No free fluid in abdomen. Bilateral pelvicalyceal system shows mild dilatation.

MRI whole abdomen and pelvis with contrast, suggestive of- uterus normal in size, shape and signal intensity. Endometrium normal in thickness. Large lobulated cystic lesion with multiple loculations and one of the loculation shows, fluid-fluid layering in the right ovary, with evidence of haemorrhagic content and minimal thin enhancement along the peripheral wall, no asymmetrical wall thickening noted, the lesion measures about 213×169×312 mm in size. Left ovary appears normal no adnexal cyst or mass seen on left side. Likely serous

cystadenoma with evidence of haemorrhagic content in one of the loculations.

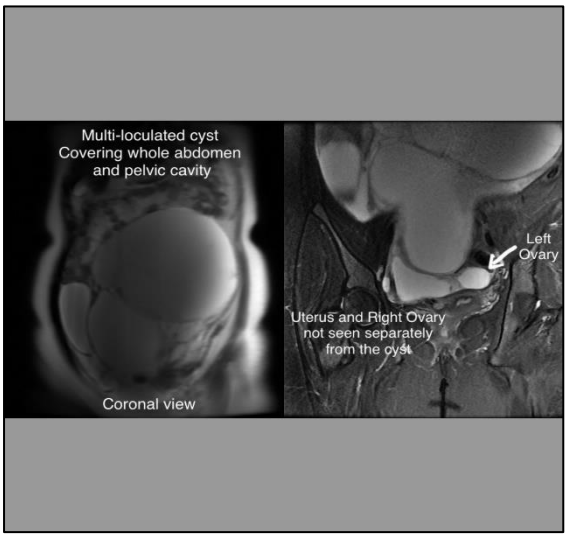

Figure 1: MRI plates showing extent of cyst.

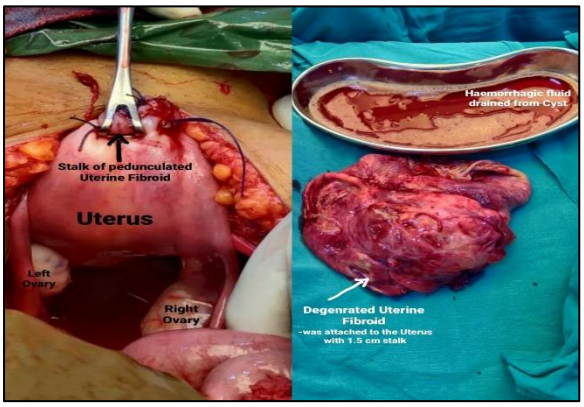

Figure 2: Intra-operative findings- bilateral tubes and ovaries were normal, and a huge degenerated cystic mass with solid component attached with uterine fundus with 1.5 cm stalk.

Sonography and MRI was highly suggestive of right sided massive ovarian cyst, most likely serous cystadenoma. However, serum tumor markers were within normal limits, namely: CA125- 100.6, BETA HCG <0.5, AFP- 1.38, CEA- 1.37, AMH- 1.60.

Patient was planned for ultrasound guided cystic fluid aspiration, followed by laparoscopic removal of cyst with frozen section and proceed.

Intra operative findings: ultrasound guided tapping done, approx. 2.5 L of haemorrhagic fluid drained but tumour size failed to reduce much. Cystic fluid sent for cytology for malignant cell. Laparoscopic trocar inserted at Palmer's point with great difficulty, due to large solid-cystic tumor which was seen occupying whole peritoneal cavity, so laparotomy was done. At laparotomy a massive subserous pedunculated 30×30 cm degenerated mass with solid-cystic and haemorrhagic components seen arising from 1.5 cm stalk of uterine fundus, which obliterated whole abdominal and pelvic cavity. Mass was adherent to bowel and omentum with vascular pedicles. After adhesiolysis, by clamping and ligation, mass was taken out by ligating the stalk from uterus and sent for frozen section. Mass was measuring 3.8 kilogram in weight. Rest of the uterus, bilateral fallopian tubes and ovaries, found to be normal in shape and size.

Frozen section report was suggestive of benign degenerated subserosal leiomyoma.

Postoperative course of patient was uneventful. She was discharged on 3rd postoperative day. Cytology report of ovarian cyst fluid was negative for malignant cells and final biopsy on histopathology report was found to be secondary degenerated subserous leiomyoma.

DISCUSSION

Leiomyomas are most common benign uterine tumours. They are composed of varying amount of fibrous and connective tissue.[1] Usually patients are asymptomatic, but in symptomatic group most common presentation is abnormal uterine bleeding other are pain- may be due to fibroid degeneration or torsion in pedunculated fibroid; abdominal mass; pressure symptoms.[2,3] Enlarging leiomyoma may outgrow their blood supply and undergo various type of degenerative changes such as hyaline, cystic, myxoid, red degeneration.[4] Hyalinisation being the most common type of degeneration, occurs in 60% of the cases while cystic degeneration is seen in 4 % of cases.[4] Cystic degeneration is mainly a pseudocyst derived from liquefaction of hyaline changes.[5] In case of subserous pedunculated fibroid the blood supply to fibroid can be compromised, and can compel the fibroid to take blood supply from the adjacent bowel and/or omentum, which was seen in this patient.[6] However, this blood supply cannot reach to the centre of the huge fibroid, leading to secondary degenerative changes. Normally in radiological findings a fibroid can easily be diagnosed as homogenous or heterogenous hypoechoic masses, but in case of degenerated fibroid the whole presentation changes to variegated appearance and preoperative diagnosis becomes a challenge.[7,8]

CONCLUSION

Giant degenerative fibroid might present as an ovarian mass which poses challenge in diagnostic course. This may confound with complex ovarian cyst on radiological modalities. Diagnostic certainty can be achieved only by skilful intraoperative examination and histopathology.

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