



Twisted Ovarian Fibroma Mimicking as an Ectopic Pregnancy

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Abstract:

Ovarian fibromas are benign tumors arising from the stromal component of the ovary. They mostly are asymptomatic. These tumors are often detected as incidental finding detected on routine gynaecological examination, transvaginal ultrasound, computer tomography or magnetic resonance imaging. We report a case of twisted ovarian fibroma with raised HCG levels and ascites mimicking ruptured ectopic pregnancy in young nulliparous married female.

Key words: Fibroma, Ectopic Pregnancy, Ascites, Ovarian Neoplasms, Pregnancy.

Introduction

Ovarian fibromas are most common benign solid tumors of the ovary and accounts for approximately 1-4% of all benign ovarian tumors [1]. They are generally asymptomatic and typically detected in middle aged women on palpation during routine gynecological examination. A rare case of twisted ovarian fibroma with raised HCG levels and ascites mimicking ruptured ectopic pregnancy in young nulliparous married female is being reported.

Case Report

A 22 year old nulliparous married female presented in emergency with acute pain in lower abdomen and vaginal bleeding for one day following one and a half month amenorrhea. History of a fainting attack was present. There were no associated bladder or bowel complaints. On general examination, her pulse rate was 110/min and blood pressure was 96/60 mm Hg. Abdominal examination revealed tenderness in left iliac fossa. Vaginal examination revealed a normal sized uterus and a large irregular tender mass of 5x10 cm size, cystic to firm in consistency. Cervical motion tenderness was present. Hematological investigations were normal with hemoglobin of 10 gm/dL and TLC of 5600/mm³. Ultrasound showed a mixed echogenic mass of 9.5x4.5 cm in left adnexa which was extending posterior to the uterus. Uterus was normal sized with endometrial thickness of 7 mm. Free fluid was present in the pelvis. Her urine pregnancy test was positive. A diagnosis of ruptured ectopic pregnancy was entertained and patient was undertaken for emergency laparotomy. Peroperatively,

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100 c.c. of serous fluid was present in the abdominal cavity. A big, white mass measuring 8x6x4 cm with irregular surface was present posterior to the uterus which was attached to the left ovary with a very thin pedicle measuring 0.5 cm in width and around 1.5 cm long and twisted thrice [Fig.1]. Both the tubes and ovaries were normal. No evidence of any other ectopic mass was found. Mass was adherent to the sigmoid colon posteriorly. The mass was removed after releasing the adhesions and cutting it from the pedicle. Curettage of endometrial cavity was done simultaneously. Cut surface revealed firm grey white colour with yellowish area in between [Fig.2]. There were no areas of hemorrhage and necrosis. Histopathological examination revealed cells arranged compactly in intersecting fascicles and vague storiform pattern [Fig.3]. The cells were elongated, spindle shaped with indistinct cell boundary, eosinophilic fibrillary cytoplasm, elongated nuclei with pointed ends showing fine chromatin and inconspicuous nucleoli [Fig.4]. No mitotic figures were seen. Special stain for Masson's trichrome was negative and immunohistochemistry for desmin was also negative. Histological features were consistent with ovarian fibroma. Endometrial curetting's revealed broken up bits of secretory endometrial glands with oedematous stroma infiltrated by acute and chronic inflammatory cells. Although urine pregnancy test was positive pre-operatively, to confirm elevated HCG levels, a serum sample was sent in the immediate post-operative period and value obtained was 125 mIU/mL. Beta HCG resolved to less than 2 mIU/mL after 2 weeks. Her post-operative course was uneventful. Patient has been on follow-up for last 1 year and have conceived recently.

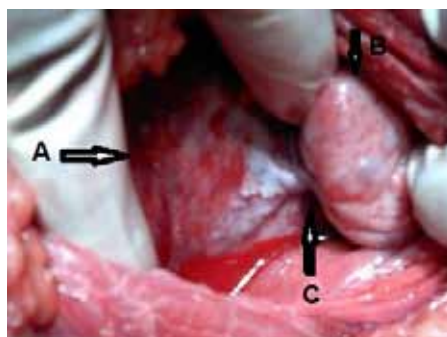


Fig.1: Intraoperative picture showing [A] fibroma attached to the [B] ovary with [C] twisted pedicle.



Fig.2: Cut section of the ovarian fibroma.

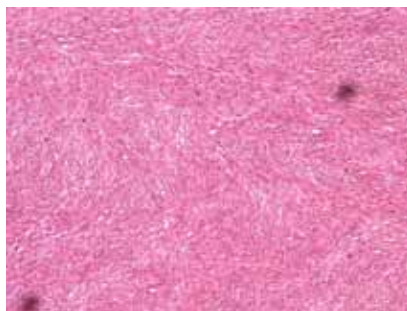


Fig.3: Histopathology of ovarian fibroma showing compactly arranged cells in intersecting fascicles and vague storiform pattern under low magnification (10x).

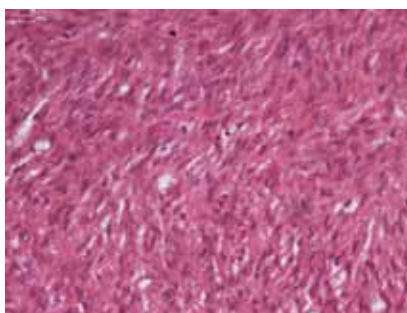


Fig.4: Elongated spindle shaped cells with indistinct cell boundary, osinophilic fibrillary cytoplasm, elongated nuclei, inconspicuous nucleoli under high magnification (40x).

Discussion

One of the purposes of presenting this case is the diagnostic dilemma as none of the symptoms or investigations pointed towards the ovarian mass. The typical triad of amenorrhoea followed by pain and bleeding with positive urine pregnancy test and ultrasonography finding of adnexal mass with free fluid in pelvis indicated towards ruptured ectopic pregnancy. Although elevated CA-125 levels have been found with this tumor, but elevated beta-HCG levels in association with ovarian fibroma has yet not been observed, thus raised beta HCG level in the present case can be attributed to chemical pregnancy.

Ovarian fibroma is a rare benign tumor originating from the connective tissue of the ovarian cortex. According to the WHO classification of ovarian neoplasm, they represent a subgroup of granulosa-theca cells tumors and belong to theca fibroma group. The fibroma arises from spindle cells which produces collagen. It is the commonest subtype of the sex cord-stromal tumors [2]. The mean age at diagnosis is 48 years and 90% of patients are at least 30 years old when they are diagnosed with fibroma [3]. In our case patient was 22 years old. These tumors are often asymptomatic despite their large size and are mostly discovered on routine physical examination. Occasionally large fibromas may develop a pedicle and undergo torsion causing acute abdominal symptoms as in the present case. Ascites or classic Meig's syndrome with additional hydrothorax has been found in 10% of all cases and 40% of tumors larger than 10 cm in maximum diameter [3]. Development of

ascites is attributed to inefficient lymphatic drainage through a small-for-size pedicle and a lack of a real tumor capsule to prevent leakage of lymph in the peritoneal cavity. Hydrothorax is secondary to ascites due to trans diaphragmatic passage. Treatment is always surgical because of the low probability of malignancy. Leung SW *et al* reviewed 23 cases of ovarian fibroma and concluded that surgical removal of these solid ovarian tumors is recommended [4]. Open or laparoscopic approaches are both acceptable but careful handling of the tumor is mandatory as approximately 1% of these are malignant. Ultrasound appearance of the tumor is variable, most manifest as solid hypo-echoic masses with sound attenuation. Lack of tumor enhancement on computed tomography is the most reliable sign of ovarian torsion and should facilitate prompt surgical intervention [5].

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