Case Report:

Ovarian fibroma feigning carcinoma in a young female: a rare case presentation

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ABSTRACT

Ovarian fibroma is a stromal (mesenchymal) tumor, which accounts for 4%- 5% all ovarian tumors. It usually occurs in patients beyond 40 years of age. Ovarian tumors in childhood and adolescence are rare, accounting for approximately less than 1% of all malignant neoplasms in the age range of 0-18 years. Ovarian fibromas are rare in women below 20 years of age, constituting about 4% of all ovarian neoplasms. Ovarian fibromas usually present as unilateral, solid, hard masses with a smooth to bosselated external surface. Most of the ovarian fibromas are benign in nature. Meig’s Syndrome constitute ovarian fibromas in association with ascites and hydrothorax. Hysterectomy with bilateral Salpingo-oophorectomy can be considered in perimenopausal or postmenopausal women, and ovariectomy or unilateral salphingo-oopherectomy only can be performed in young women. Surgical removal of these solid ovarian tumors is recommended to prevent occurrence of malignancy.

We report a rare case of ovarian fibroma occurring in a 20 year old young female with elevated CA 125 levels.

KEY WORDS: Ovarian fibroma, CA-125, Mesenchymal tumor.

INTRODUCTION

Ovarian fibroma is a stromal (mesenchymal) tumor, which accounts for 4% of all ovarian tumors. It usually occurs in patients beyond 40 years of age. Ovarian fibromas usually present as unilateral, solid, hard masses with a smooth to bosselated external surface. Edematous ovarian fibromas are soft in consistency and cyst formation is common in such tumors. The cut surface shows homogenous grey white whorled appearance and may show occasional areas of calcification and long standing cases may also show cystic change. Majority of the ovarian fibromas are benign in nature, until and unless proved. Large fibromas are associated with ascites and hydrothorax known as Meig’s Syndrome. We report a rare case of ovarian fibroma occurring in a young female with elevated CA 125 levels.

CASE REPORT

A 20-year-old female presented to the out-patient department with complaints of pain and heaviness in the left lower abdomen for the past one and half year that had suddenly increased during the 5 days prior to reporting to the hospital. She gave a history of increased menstrual flow with passage of clots in the last few months. She also complained of fever, vomiting, constipation, increased frequency of micturition, decreased appetite, weight loss, lethargy and fatigability since last 20 days. Patient attained menarche at the age of 14 years, regular periods 3-5/28 days, scanty flow. Her general physical examination was normal. An abdominal examination showed a 12-13 weeks size, tender supra-pubic mass arising from the pelvis localized to the left iliac region. Per vaginal examination revealed...
an irregular, firm mass. Haematomogony and biochemical parameters were within normal limits except CA 125 levels. The patient’s blood CA-125 levels were raised to 135 U/ml (normal < 35 U/ml). Clinical presentation and laboratory investigations pointed towards provisional clinical diagnosis of malignant ovarian tumor and left salpingo-oophorectomy was planned.

**RADIOLOGICAL FINDINGS**

An abdominal ultra-sonography revealed a left ovarian mass measuring 7.2 x 5.8 x 4.2 cm – Features are suggestive of benign ovarian tumor, possibility of ovarian fibroma. The right ovary and uterus were unremarkable. Left salpingo-oophorectomy was done and specimen sent for histopathological examination.

**PATHOLOGICAL FINDINGS**

**GROSS FINDINGS**

Received left sided ovarian mass measuring 7.5 x 6 x 4 cm, ovary compressed to one side measuring 2.5 x 2 x 0.5 cm. Fallopian tube measuring 1.5 cm length. The ovarian mass was well circumscribed, well encapsulated and external surface smooth. Cut-section of the ovarian mass showed homogenous grey white, whorly appearance. There were no areas of papillary projections, necrosis or hemorrhage. On gross examination the provisional histopathology diagnosis was a benign ovarian tumor. *(FIGURE 1)*

**MICROSCOPIC FINDINGS**

On microscopic examination, multiple sections taken from the ovarian mass revealed tumor tissue composed of spindle shaped cells arranged in fascicles and bundles with uniform oval to elongated bland nuclei and scant cytoplasm. There are areas of edema and hyalinization in between the tumor tissue. Multiple sections were evaluated to rule out any focus of epithelial differentiation.

**Impression**: Histological features suggestive of Fibroma ovary. *(FIGURE 2,3,4)*
Figure (1) showing the gross picture of ovarian fibroma with ovary compressed to one side.

Figure (2 & 3) showing the low power view of the tumor tissue arranged in bundles and fascicles with few areas of hyalinization. Figure (4) showing the high power view of the tumor tissue with spindle shaped cells, scant cytoplasm and oval to elongated bland nuclei.

DISCUSSION

Ovarian fibromas are stromal/ mesenchymal tumors composed of spindle, oval or round cells producing collagen. Fibromas are usually solid, oval to spherical, slightly lobulated, well circumscribed, grey-white mass covered by a glistening, intact capsule. Fibromas most frequently occur during middle age, with an average age being 45 years. Ovarian fibromas are benign tumors. Surgical removal of these solid ovarian tumors is recommended because of the low probability of malignancy. CA-125 as an ovarian carcinoma tumor marker has been suggested as a valuable tool to assist in distinguishing between benign and malignant neoplasms. Unfortunately, it has not proved to be a reliable predictor of ovarian cancer as normal values do not exclude the presence of carcinoma and elevated levels can be associated with a benign diagnosis. Spinelli, et al also reported a case of benign ovarian fibroma with elevated CA-125 levels. In our case, there was a strong clinical, and serological suspicion of malignancy, but left salpingo-oopherectomy was planned keeping in view the age of the patient. Intra-operatively the swelling appeared to be of benign nature. Post-operatively patient’s CA-125 level fell to 18 U/ml within 9 weeks of surgery. The present case report emphasizes the rare presentation of ovarian fibroma in a young female and also reinforces the non specificity of CA-125 as a marker of ovarian malignancy. It beckons us to re-evaluate the presumption that thorough clinical examinations supported by laboratory investigations and imaging modalities are fool proof in themselves. Histopathological diagnosis plays a major role in differentiating benign and malignant tumors based on the cell morphology.

ASSOCIATED FEATURES RELATED TO OVARIAN FIBROMAS

- Ascites and hydrothorax are seen in the cases where the size of fibroma exceeds 10 cm diameter.
• Incidence of Meig’s syndrome is 1% of all ovarian fibromas.

• Meig’s syndrome is the triad of ovarian fibroma with ascites and pleural effusion. Pleural effusion and ascites resolve with successful resection of the ovarian tumor.

• Ascites is sometimes present, and the serum CA 125 level increase, which may lead to the mistaken diagnosis of a malignant tumor of the ovary (5,6).

• Meig’s suggested that the production of ascites is due to irritation of the peritoneal surfaces by a hard, solid ovarian tumor (7,8).

• CA-125 as an ovarian carcinoma tumor marker has been suggested as a valuable tool to assist in distinguishing between benign and malignant neoplasms. Unfortunately, it has not proved to be a reliable predictor of ovarian cancer as normal values do not exclude the presence of carcinoma and elevated levels can be associated with a benign diagnosis (3).

Surgery is the recommended treatment for ovarian fibroma. Hysterectomy with bilateral Salpingo-oophorectomy can be considered in perimenopausal or postmenopausal women, and ovariectomy or unilateral salpingo-oophorectomy only can be performed in young women. Surgical removal of these solid ovarian tumors is recommended to prevent occurrence of malignancy (2).

CONCLUSION

Ovarian fibromas are uncommon but are the most common benign solid tumors of the ovary. They constitute about 4% of all ovarian tumors. Gynecologists should be aware of this type of tumor because of the difficulties in diagnosis. This tumor is often misdiagnosed as a uterine myoma in ultrasonographic findings and is sometimes mistaken for a malignant tumor of the ovary, because of its solid nature, increased tumor marker levels, and accompanying ascites. However, ovarian fibromas are benign and can be treated completely by surgical removal, and laparoscopic surgery can be an effective and safe alternative approach. This case is presented in a view of highlighting a rare case of ovarian fibroma in an unmarried 20 yr old female with elevated CA-125 levels.

REFERENCES


