

Benign Serous Cyst Adenofibroma of Ovary – Case Report

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Abstract: Ovarian cystadenofibromas are rare benign ovarian tumours in women around fourth to fifth decade of life. They contain epithelial as well as fibrous stromal components. We seek to describe an atypical clinical and radiological presentation of cystadenofibroma in a younger female.

Keywords: Cystadenofibroma, Ultrasound, Magnetic Resonance imaging (MRI).

I. Introduction

Ovarian cystadenofibroma is one of the rare benign ovarian tumour, generally affecting women in their fourth to fifth decade of life. They represent 1.7% of all benign ovarian tumours(1). The appearance of cystadenofibroma on imaging is often complex; they appear as cystic to solid mass and often resembles a malignant tumour. On MRI, cystadenofibromas usually appear as multilocular cystic lesion with T2 hypointense fibrous component (black sponge like appearance). Here we report a case with atypical clinical and radiological presentation of cystadenofibroma in a younger female.

II. Case Report

A 26-year-old married woman presented with complaints of pain abdomen on and off for 7 months, aggravated since 3 months. She also had complaints of discomfort and fullness in abdomen for 1 month. No significant menstrual irregularity. Ultrasound abdomen showed a large, unilocular, anechoic, abdominal pelvic cyst (figure 1A) measuring 19.0 x 17.9 x 9.0 cm, with few small mural nodules (figure 1B). However no septations were seen within the cystic lesion. Left ovary was not identified separately, suggestive of ovarian origin. For further evaluation MRI was suggested, which revealed a large thin walled unilocular cystic lesion measuring 21.8 x 8.4 x 17.3 cm in the abdomino-pelvic region in the midline, extending superiorly upto the epigastrium. Left ovary was not identify separately. Cystic component demonstrates low signal intensity on T1W images and high signal intensity on T2W images(Figure 2A,2B,3A & 3B). Minimal free fluid was noted in the pouch of douglas. Multiple mural nodules appearing isointense on T1W image and hypointense on T2W images were noted along the posterior wall of the cyst. On CT screening mural nodules showed calcifications. A provisional diagnosis of left ovarian complex cyst was made and she was taken up for laprotomy and left oophorectomy done (figure 4A). Histopathological examination revealed benign serous cystadenofibromas (figure 4B).

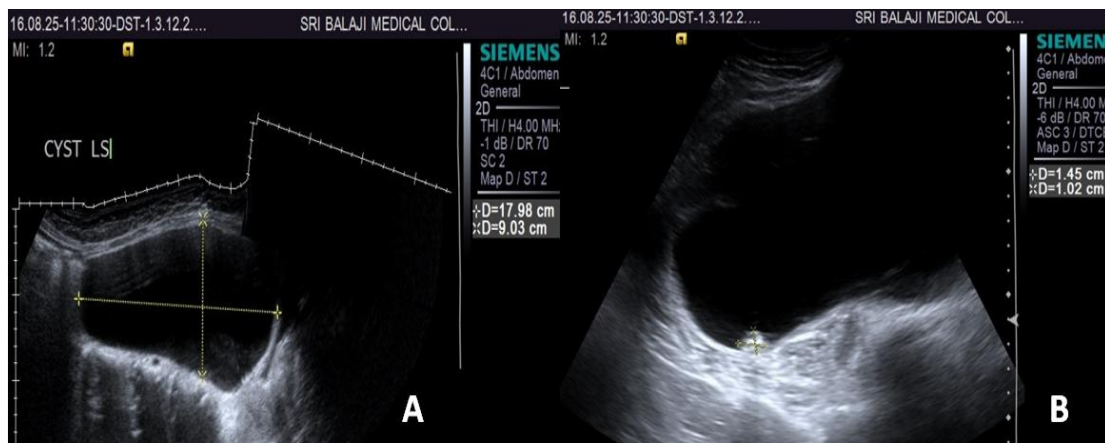


Figure 1A & 1B :- Ultrasound abdomen showed a large, unilocular, anechoic, abdominal pelvic cyst measuring 17.9 x 9.0 cm which is taken in longitudinal section with few mural nodules were seen in the posterior wall of the cyst largest measuring 1.4 x 1.0 cm.

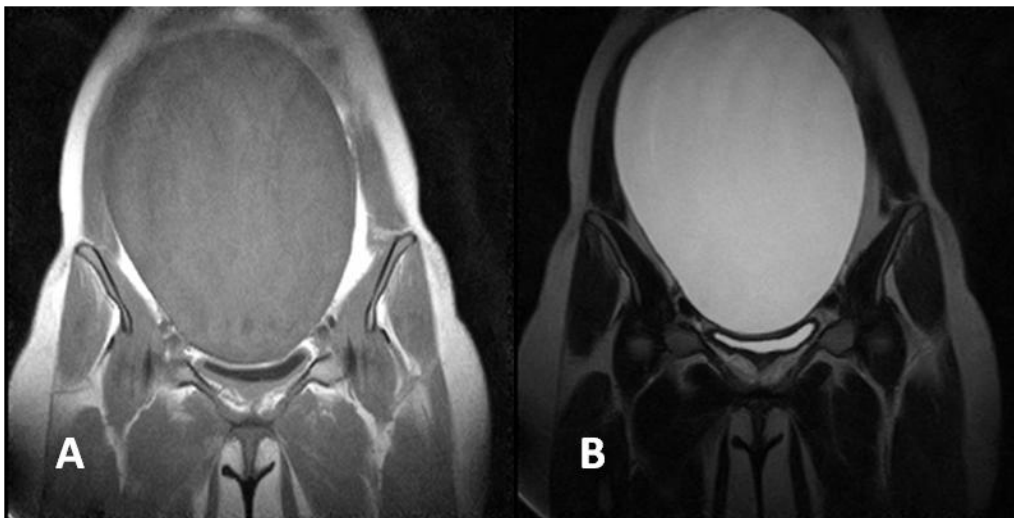


Figure 2 A & 2B :- Cystic component demonstrates low signal intensity on T1W images (Fig 2A) and high signal intensity on T2W images (Fig 2B).

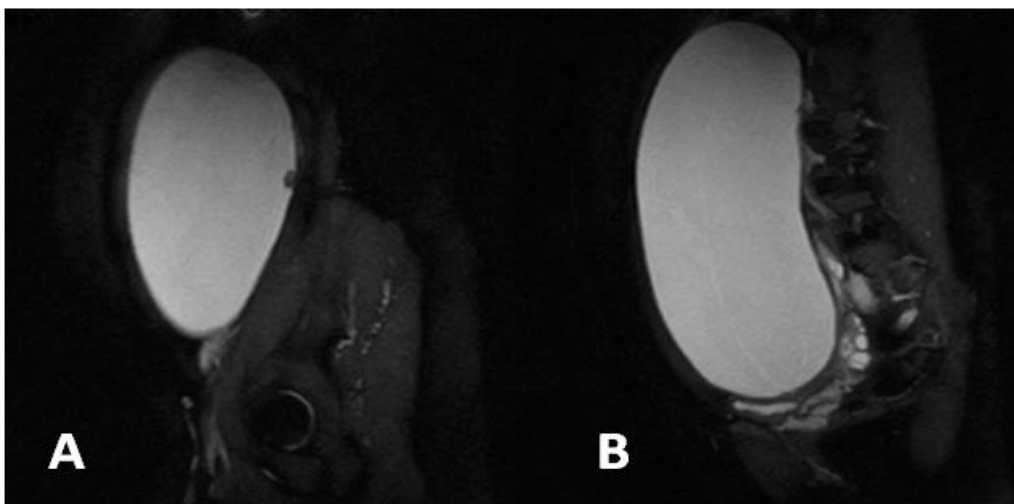


Figure 3A & 3B :- Cystic component in sagittal section demonstrates high signal intensity on T2W images (Fig 3A). Mural nodules appearing hypointense on T2W images were noted along the posterior wall of the cyst (Fig 3B).

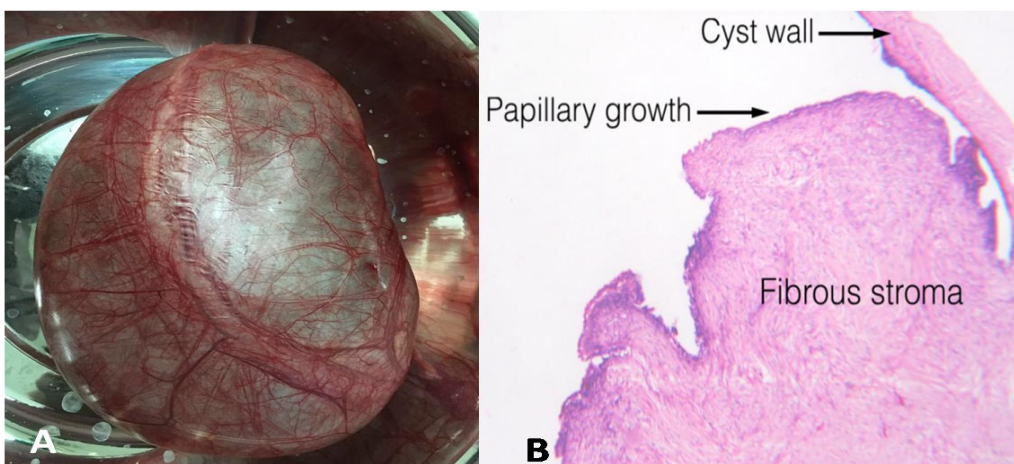


Figure 4A & 4B :- Left oophorectomy with specimen measuring 20 x 15 x 10 cm with tube measuring 2 cm(4A). Histopathology show ovarian enclosing corpus luteum, follicular cyst and a cystic lesion lined by single layer of cuboidal cell overlying hyalinized fibrous stroma and thrown into papillary formation. Tube appear congested. Focal areas of calcification seen (4B).

III. Discussion

Ovarian cystadenofibroma is an uncommon benign neoplasm containing epithelial and fibrous stromal components, accounting for 1.7% of all benign ovarian tumors.[1] These tumors can be predominantly cystic, complex cystic with variable amounts of solid components or predominantly solid. Because of their solid component or irregular thick septae, these masses are often diagnosed as malignant on preoperative imaging [1,2]. On USG, cystadenofibroma may show a solitary cyst or multiloculated cystic mass, with solid nodules or papillary projections; 50% of the cases demonstrate increased vascularity.[3] If the lesion is irregular, solid with ascites, with more than three papillary structures or irregular multilocular solid tumor with largest diameter >100 mm, with increased blood flow are the ultrasound criteria for the risk of malignity. Unilocular ovarian cysts with solid components of largest diameter less than 7 mm with acoustic shadowing or smooth multilocular tumor with a largest diameter less than 100 mm are criteria for the prediction of benign lesions[4].USG cannot definitely characterize this tumor as its heterogenous appearance mimics a malignant ovarian neoplasm. A computed tomography (CT) scan also is of limited value in evaluating this tumor. In a study of 16 patients done by Cho et al., all cases presenting as complex cystic masses with solid components, were preoperatively misdiagnosed as malignant ovarian neoplasms on CT scan or MRI [1]. MRI has been described as the modality of choice for distinguishing complex ovarian masses. MRI feature of cystadenofibromas are T2 low-signal intensity (relative to the skeletal muscle) of the solid fibrous component of this tumor, was first described by Outwater et al.[5]. Other findings include multiple tiny high-T2-signal intensity cysts with a low-signal intensity solid fibrous component, giving a sponge-like appearance on T2-images [6] and multicystic foci with thickened septae, demonstrating low-T2-signal intensity corresponding to its fibrous nature [3]

The close differentials for similar imaging findings for fibrous component are fibroma, fibrothecoma and Brenner tumor, which are all benign tumors.Ovarian fibromas may mimic malignant lesions due to their solid component [7]. Brenner tumor manifests as either a multilocular cystic mass with a solid component or as a small, predominantly solid mass. The solid component of these tumors may show extensive amorphous calcification.[8] The MRI features of a rare cystadenofibrocarcinoma have been described and the authors reported a predominant solid component with moderately high-T2-signal intensity and strong postgadolinium enhancement.[2]

III. Conclusion

Here we report a case to with atypical radiological features of cystadenofibroma in a younger age group, with unilocular large cystic appearance with small T2 hypointense nodules instead of black sponge like appearance.

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