

A RARE CASE REPORT: RUPTURED COLLISION TUMOR OF OVARY

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ABSTRACT

Introduction: Collision tumour are the multiple contemporary tumours in a single organ, without histological admixture of each other. Because the components of the single or multiple tumours are separated from each other by stroma or by their basal lamina .It have been reported in various organs but are relatively rare in ovary. Possible collision tumour in the ovary are Cystadenocarcinoma and dermoid cyst, teratoma and mucinous cystadenoma, serous cyst adenocarcinoma and teratoma, carcinosarcoma and dermoid cyst, choriocarcinoma and cystadenoma. It can be benign or malignant. Mature Teratoma is one of the most common component of collision combination in ovary which consist of germ cell tumours.

Case Report:

33-year-old female married from 6 years was came to gynaecology OPD with complaint of infertility and lower abdominal pain with normal menstrual history.

Abdominal examination shows large abdominal mass arising from pelvis. Routine haematological and coagulation profile was normal Thyroid function test was within normal limits. Based on the USG findings a malignant neoplasm of the ovaries was suspected. Total abdominal hysterectomy with right salphingo oophorectomy was done and mass was resected and sent for HPR report. Histopathologic study revealed multiloculated ruptured mature teratoma with mucinous cystadenoma.

Results:

Gross - It was large encapsulated ruptured tumour mass occupying the ovary. Cut section shows two distinct features and both areas are complete demarcated. Major portion is solid, smooth and whitish in colour. Rest of the tumour showed complicated multiple cystic architecture.

Microscopy - In microscopic findings, there were 2 main histologic component .The first component was mucinous cyst adenoma in which sections from cystic part showed cyst wall lined by mucin secreting epithelium and showing stratification. Second component was teratoma with mature elements in which Section from dermoid cyst shows cyst wall lined by flattened epithelium .Sub epithelium showed fibro collagenous tissue along with hair follicles and scanty mononuclear infiltrate also noted.

Conclusions:

It is important to correctly diagnose the component of tumour for further management and favourable prognosis. The rare reports of ovarian collision tumours may reflect insufficient recognition of the disease rather than a low incidence. Therefore, awareness of collision tumours is crucial to the ovarian tumour diagnostic process.

Keywords: Collision Tumor, cystadenoma , teratoma

INTRODUCTION:

Collision tumor refers to the multiple contemporary tumors in a single organ, without histological admixture of each other and are separated from each other by stroma or by their basal lamina. It can be benign or malignant. Many cases have been reported in different organs, however it is relatively rare in ovary. Mature Teratoma is one of the most common component of collision tumor in ovary. In our case, Collision Tumour combination of Mucinous Cystadenoma with Mature Teratoma.

CASE REPORT

- 33 yr/F patient married for 6 years came with C/O infertility and lower abdominal pain. Menstrual history was normal. Hematological, coagulation parameters and thyroid function tests were all unremarkable. Per abdomen and pelvic examination revealed a large mass arising from the pelvis which was subjected to USG for evaluation.
- USG revealed a large distended ovary with multiloculated cystic as well as solid areas in the right adnexa measuring 18x12x6.5 cm, with no evidence of Lymphadenopathy and free fluid in the abdominal cavity. Left adnexa was unremarkable.
- TAH with Right Salphingo-Oophorectomy was done and it was sent for Histopathology.
- HPR revealed Multiloculated ruptured Mature Teratoma with Mucinous Cystadenoma.

GROSS

- Large, encapsulated ruptured mass in ovary – 17x12x6 cm. C/S – majority solid areas having smooth, grey-white appearance with complicated multilocular cyst. (Figure 1)

MICROSCOPY

- In microscopic findings, there were 2 main histologic component.
- 1st component is cyst wall lined by mucin secreting cells with stratification and stromal infiltration. (Figure 2A)
- 2nd component is cyst having fibro-collagenous tissue with hair follicles.(Figure 2B)
- Both components mucinous cyst adenoma and teratoma are separated from each other by fibrous lining.

DISCUSSION

- Collision Tumors diagnosed mainly in female patients aged 20-40 years. These comprise 15% of all ovarian tumours; 90% unilateral & can be associated with raised CA125 levels.
- The utility of tumour markers to predict benign vs malignant is limited but malignant transformation is uncommon but well recognized complication of teratoma which includes adenocarcinoma, clear cell carcinoma, squamous cell carcinoma. In this case, both components were benign ; CA125 level have been found increased(255 IU/mL).
- To identify clonality and histogenesis of the tumour the molecular analysis can be helpful.

CONCLUSION

- It is important to correctly diagnose the component of Collision Tumor for further management and favorable prognosis. The rare reports of Ovarian Collision Tumors may reflect insufficient recognition of the disease rather than a low incidence Therefore, awareness of Collision Tumor is crucial to the ovarian tumor diagnostic process.

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