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Collision Tumors of Ovary: A Rare Entity

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Abstract:

Mature cystic teratoma of the ovary, contains derivatives of all three embryonic germ cell layers, rarely presents together with ovarian epithelial or sex cord-stromal tumors. In the available literature there is one similar case report in a non-child bearing young women. We report here a rare case of collision tumour of ovary comprising of bilateral mature cystic teratoma with serous cystadenoma right ovary in a 18 year-old girl.

Keywords: collision tumor, teratoma, cystadenoma.

1. Introduction

Collision tumors represent a coexistence of two adjacent but histological distinct tumors without admixture in the same tissue or organ. Though such tumors have been reported often in various organs, their occurrence in ovary is rare.. They are mostly composed of ovarian teratoma (typically mature cystic teratoma) and an ovarian cystadenoma / cystadenocarcinoma

2. Case History

18 year old unmarried girl presented in the OPD with the chief complaints of pain lower abdomen and mass abdomen 1 year menstrual history was regular with moderate flow. On examination Cystic mass of 10 x 8 cm was palpable in the hypogastrium, umbilical and right and left lumbar and iliac fossa, lower border not felt, smooth surface, Transverse mobility (+), non tender. AFP, LDH and B-HCG were normal. CECT showed B/L adnexal cystic lesion extending into abdomen showing septations, solid and fat components and calcifications measuring 5.3x6.2x7.4 cms on right side and 8.4x11.2x13.4cms on left side suggestive of dermoid cyst. Exploratory laparotomy with Bilateral cystectomy was done. Intraop findings- Left ovarian cyst of 13x 11x8 cm, torsion(+), twisted twice around the pedicle, multiloculated, contained sebum and hairs. Right ovarian cyst 8x7x6 cms, no torsion, unilocular 3 small 2x2 cm cysts adjoining right ovarian cyst. Histopathological examination showed bilateral mature cystic teratoma with serous cystadenoma right ovary.



Figure 1: Right 3 cystic masses, largest mng 6 x 5.5 x 4.5 cms, smallest mng 1.5 cms in diameter.
Left Two cysts, larger mng 9.5 x 8 x 4 cms, smaller mng 5 x 4 x 3.5 cm

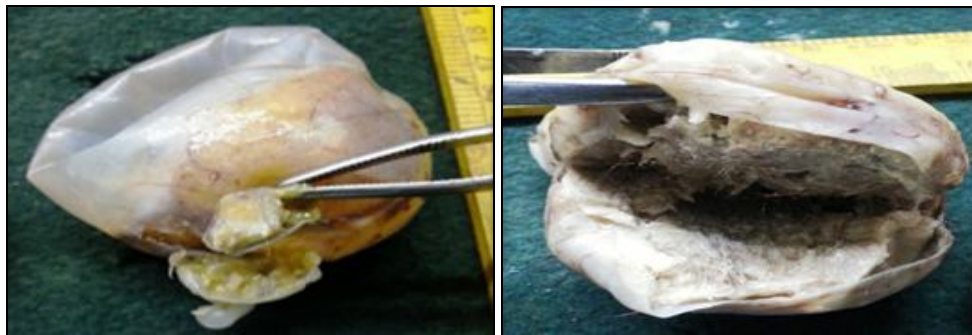


Figure 2: Right ovary: C/S of largest cystic mass: Pultaceous material. In addition there was serous fluid within the larger loculated cyst
Figure 3: Left ovary C/S: Filled with greasy pale white material admixed with hairs

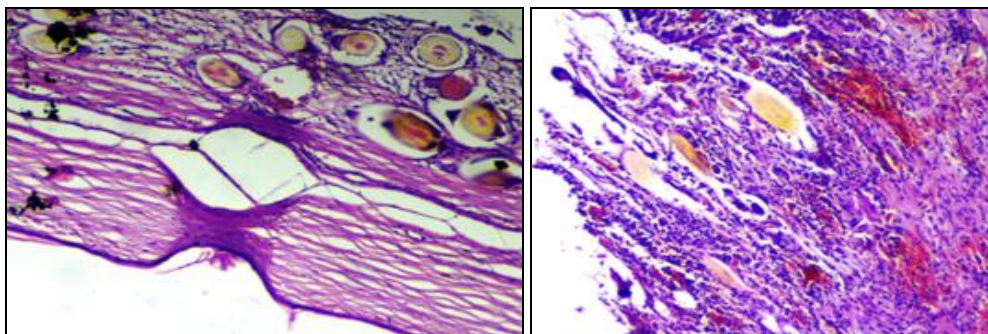


Figure 4: Right ovary Serous cystadenoma with mature teratoma

Figure 5: Left Ovary: Hair shafts, foreign body reaction

3. Discussion

We present this case because collision tumors in ovary are a rare entity and combination of serous cystadenoma with teratoma is rarer. Though collision tumors have been reported earlier, combined serous cystadenoma with mature cystic teratoma is rarely reported. There are instances of collision tumors consisting of teratoma with serous cystadenocarcinoma, mucinous cystadenocarcinoma and/or granulosa cell tumor. [3] In a study conducted at Seoul national University college of medicine, the authors reviewed seven pathologically proven cases of collision tumors of ovary associated with teratoma. Ovarian teratomas were co-existent with mucinous cystadenoma (4 cases), borderline mucinous tumor (1 case), mucinous cystadenocarcinoma (1 case) and dysgerminoma (1 case). [4] There is a single case report of collision tumor composed of a colonic adenocarcinoma arising in a sigmoid diverticulosis coexisting with recurrent ovarian granulosa cell tumor. [5]. Rare cases of ovarian cystic teratoma in association with surface epithelial tumors have been reported in literature and occurrence of serous cystadenomas with mature cystic teratoma is even rarer. [3] Collision tumors have been described in various organs including oesophagus, stomach, liver, bone, kidney, brain and lung. Such tumors involving ovary are rare.

4. Conclusion

We would like to emphasize upon the fact that multiloculated cysts have to be extensively examined, so as not to miss any component which might have a bearing on prognosis of the patient. Such cases need to be documented for academic as well as prognostic purpose.

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