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Case Report

Collision Tumor of Ovary - A Rare Entity

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ABSTRACT

Collision tumors represent a coexistence of two adjacent but histopathologically distinct tumors, without admixture in the same tissue or organ. These tumors are rare in various organs and rarer in ovary. The collision tumors are diagnosed postoperatively because there are no specific features that aid their diagnoses preoperatively. Tumor marker study is advisable preoperatively on suspicion of collision tumor. Careful gross examination and extensive histopathological study from various parts of tumor is essential for proper diagnosis and further management.

Key words: Collision tumor of ovary, dermoid cyst, serous cyst adenoma.

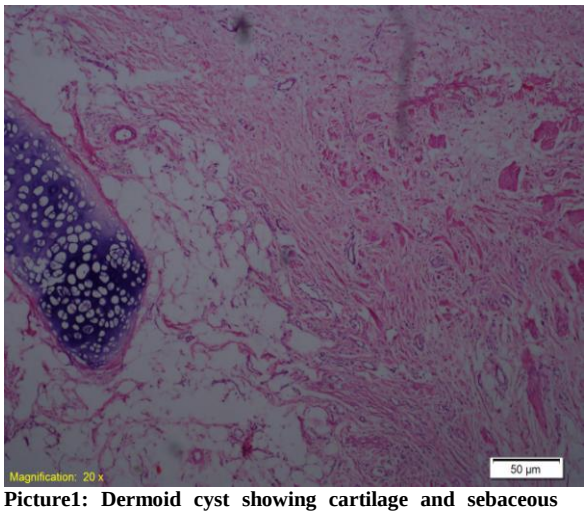
INTRODUCTION

Collision tumors defined as a tumor in which different neoplastic components present in same organ, remains histopathologically distinct and separated from each other by narrow stroma or their respective basal lamina. Because direct transition from one cell type to another is not seen, these tumors are best considered as separate primary tumor. [1] The origin of these tumors has been debated. It is proposed that collision tumors could arise from 2 different cell lines growing at the same time, side by side or a chance occurrence of 2 tumors in the same organ. The other commonly held view is the origin from a common precursor pluripotent stem cell. Though such tumors have been reported often in various organs, their occurrence in ovary is rare. We report a case of collision tumor of ovary consists of mature cystic teratoma and serous cyst adenoma.

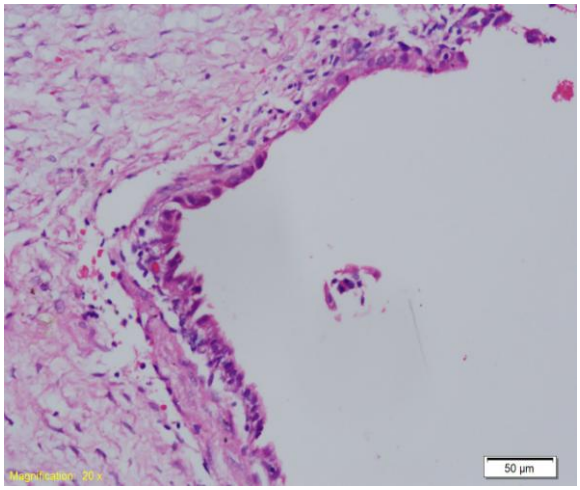
CASE REPORT

A 22 year old unmarried GoP0 girl presented with pain in lower abdomen since three months. Pain was sudden in onset and more on right side. Her menstrual cycles were regular. On abdominal examination an ill-defined, tender and cystic mass was palpated in right iliac fossa. Her abdominopelvic ultrasonographic examination right ovary showed complex cystic lesion measuring 7.94x4.25x7.07cm with multiple thickened septa with echogenic debris, echogenic nodule and cystic components. (? Dermoid). Tumor markers alpha-fetoprotein, LDH and Bhcg were normal. Laparoscopic cystectomy done. After cystectomy another cyst was seen in same ovary, second cystectomy done. Patient did well postoperatively. Microscopically section studied from first cyst showed features consistent with mature cystic teratoma (Figure-1). Section studied from second cyst showed features consistent

with serous cystadenoma of ovary (figure-2).



Picture1: Dermoid cyst showing cartilage and sebaceous gland.



Picture 2: Serous cyst adenoma showing low columnar to cuboidal epithelium.

DISCUSSION

Collision tumors have been described in various organs including oesophagus, stomach, liver, bone, kidney, brain, lung, thyroid gland and adrenal gland. Such tumors involving the ovary are quite rare, and various combinations have been reported. They include combinations of cystadenocarcinoma and Dermoid cyst, teratoma and mucinous cystadenocarcinoma, carcinosarcoma and dermoid cyst, granulosa cell tumor and ovarian hepatoid carcinoma, granulosa cell tumor and serous cystadenocarcinoma [2] and teratoma and endometriod carcinoma. Teratoma (benign) appears to be a more common component among the reported combinations of collision tumors of the ovary. Usually on ultrasonographic diagnosis of dermoid cyst one doesn't suspect another pathology and doesn't go for further investigation like tumor markers. If another tumor is malignant, it will change management and alters prognosis. In such cases, preoperatively tumor marker study advisable. To our best knowledge two cases of teratoma and serous cystadenoma reported, in those cases both patients were above 40 years. [1] In this case patient is young. The collision tumors are diagnosed postoperatively because there are no specific features that aid their diagnoses preoperatively. In a study conducted by Kim et al authors studied retrospectively radiologic findings in histopathologically confirmed collision tumors associated with teratoma to identify features that might point to their existence before surgery. [3] In this series most commonly coexistent tumors were teratoma and mucinous cyst adenoma. Careful gross examination and extensive histopathological study from various parts of tumor is essential for proper diagnosis and further management.

CONCLUSION

Tumor marker study is advisable preoperatively on suspicion of collision tumor. Careful gross examination and extensive histopathological study from various parts of tumor is essential for proper diagnosis and further management.

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