



COLLISION TUMOUR OF OVARY – A RARE CASE REPORT

Dr. Garima Maheshwari	Post Graduate Student, Department of Pathology, JNMC, KLE Academy of Higher Education and Research, Belagavi.
Dr. Reshma Karishetti*	Professor, Department of Pathology, JNMC, KLE Academy of Higher Education and Research, Belagavi. *Corresponding Author
Dr. Hema Shantagiri	Professor, Department of Pathology, JNMC, KLE Academy of Higher Education and Research, Belagavi.

ABSTRACT A collision tumor is a rare occurrence where two histologically distinct tumors develop in the same organ without intermixing. While commonly reported in the gastrointestinal and respiratory tracts, it is rarely seen in the ovary. We present a case of a 65-year-old female with persistent abdominal pain for four months. Imaging revealed a cystic adnexal mass, and surgical exploration led to a left salpingo-oophorectomy. Gross and histopathological examination confirmed the presence of two distinct components: a serous cystadenoma and a fibrothecoma. The significance of differentiating collision tumors from malignant ovarian neoplasms lies in its impact on clinical management. Intraoperative tools like frozen section and scrape cytology are essential for accurate diagnosis and to avoid unnecessary radical surgeries. Awareness of this rare entity among gynecologists and pathologists is crucial for proper intraoperative decision-making and optimal patient outcomes.

KEYWORDS : Collision tumor, ovary, fibrothecoma, serous cystadenoma, histopathology, ovarian neoplasm.

INTRODUCTION

Collision tumour is defined as presence of two separate tumours in one organ, without any admixture.

These tumours are reported from oesophagus, stomach, liver, lung and thyroid glands.

Such tumours are extremely rare in ovary. In case of ovaries most common histological collision has been reported between mucinous tumours and teratomas. An unusual combination of Fibrothecoma and Serous Cystadenoma is presented here.

CASE HISTORY

A 65 year old female patient presented to OPD with the complains of pain abdomen since 4 months and a USG report showing a left adnexal cyst measuring 8.7x7.7 cm.

MRI was performed which confirmed the presence of cystic lesion along with a well-defined soft tissue lesion in the left adnexal region.

Left sided salpingo-oophorectomy was performed and the specimen was sent for histopathological examination. Invasion of the tumour into the surrounding structures was not seen intraoperatively.

Gross And Histopathology

Grossly, the tumour showed two components; a cystic and a solid component. The cystic component comprised of a uniloculated cyst which drained serous fluid. The solid component comprised of a well circumscribed grey white solid mass with areas of hemorrhage.

Both these components were well demarcated from each other. Microscopically, the cystic mass showed a benign lesion having a fibrocollagenous wall lined by cuboidal to flattened epithelium. Sections from the solid mass showed two types of neoplastic cells; mature fibroblasts and theca cells. Areas of hyalinization and hemorrhage are also seen.

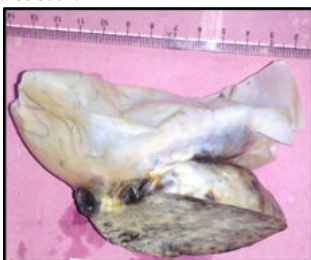


Fig. 1 A solid and a cystic mass arising from the left ovary.



Fig. 2: Cut section of gross specimen – showing grey white solid mass with areas of hemorrhage.

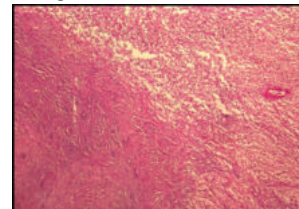


Fig. 3: Fibrous as well as thecal component (H&E 100x)

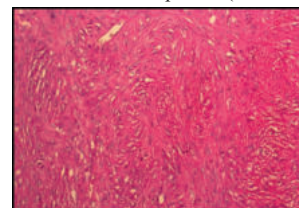


Fig. 4: Mature fibroblasts (H&E 400x)

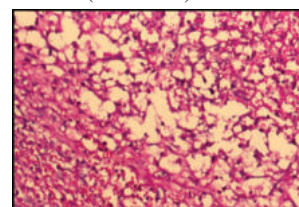


Fig. 5: Mature theca cells with vacuolated cytoplasm (H&E, 400x)

DIAGNOSIS

A diagnosis of collision tumour of benign fibrothecoma and serous cystadenoma was made considering the histopathological findings.

DISCUSSION

Collision tumours are two primary neoplasms occurring in the same organ. These tumours should be differentiated from malignant mixed mullerian tumours which are also known as composite tumours. There is intermingling of tumour lines in composite tumours. Review of literature revealed two more cases of collision tumour of ovary with histology of fibrothecoma and serous Cystadenoma. Fibroma and thecoma usually merge to form fibrothecoma. Ovarian fibrothecoma is a solid ovarian tumour, which may mimic malignant tumour. Serous cystadenomas usually present as unilocular or multilocular ovarian cysts which are lined by columnar epithelium. Importance of differentiating a collision tumour from malignant neoplasm is the impact of diagnosis on clinical management. Diagnosis should be made intra-operatively so that unnecessary morbidity associated with extensive lymphadenectomy could be prevented. Intraoperative analysis by frozen section and scrape cytology is important in such cases as it can very well differentiate between benign collision tumor from malignant neoplasm.

CONCLUSION:

Both gynaecologist and pathologist should be aware of such combination. It is important to differentiate such tumours from malignant ovarian tumours.

Frozen section and scrape cytology are important tools which help in appropriate management of such cases intraoperatively.

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