

## Huge Mass Collision Tumor of Ovary with Torsion: A Rare Case Report

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### Abstract

### Case Report

Collision tumors are composed of histologically two distinct tumors in an organ without admixture of both the tumors. Collision tumors are very rare in ovary and the combination of dermoid cyst with serous cystadenoma is even rarer. We are reporting a huge collision tumor measuring 19x14x10cm of ovary with torsion in a 50 year old female.

**Key words:** Collision tumor, dermoid cyst, serous cystadenoma, torsion.

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## INTRODUCTION

Collision tumor is defined as the presence of two histologically different tumors in the same organ without admixture of the two components [1]. These tumors have been reported in liver, kidney, brain, lung, stomach, oesophagus, bone and rare presentation in ovary [2]. Dermoid Cyst is a germ cell tumor containing all the three germ layer components. Females of age group 20-40 years are commonly affected. Ovarian serous cystadenoma reports 20% of all ovarian tumor [3]. Collision tumor described in literature is cystadenocarcinoma and granulosa cell tumor [4], teratoma with granulosa cell tumor [5] and serous cystadenocarcinoma with steroid cell tumor [6]. We report a rare case of huge collision tumor comprising of serous cystadenoma and dermoid cyst presenting with torsion.

## CASE REPORT

A 50 year old female (P3 L2) presented with pain and heaviness in whole abdomen. Ultrasonography revealed mass in right ovary with possibility of serous cystadenoma. CECT confirmed huge in right ovary with a provisional diagnosis of dermoid cyst. Panhystrectomy specimen was received in the department of pathology AIMS Bathinda. On Gross examination right ovarian cyst was of size 19x14x10cm. Two cysts were identified attached to each other, larger one measuring 14cm in diameter and smaller measuring 5cm in diameter. External surface was smooth. On cutting open, hemorrhagic fluid recovered from larger cyst and pultaceous material and hair were present in the smaller cyst. Right Fallopian tube was tan externally. Cut surface showed lumen. Uterus, cervix and left adnexa were unremarkable

grossly as well as microscopically. Microscopic examination confirmed a collision tumor in right ovary comprising of serous cystadenoma and dermoid cyst with features of torsion. Right fallopian tube also showed features of torsion.

## DISCUSSION

Many theories are suggested for the development of collision tumors. First hypothesis is "chance accidental meeting". Second theory suggests microenvironmental changes in the primary tumor leading to the pathogenesis of secondary tumor. Third hypothesis says "common stem cell origin [7]".

The common collision tumors of ovary are mature teratoma and mucinous cystadenoma. Okada *et al.* have reported eleven cases of mucinous tumors with associated dermoid cysts [8].

Triple co-existence of collision tumor comprising of serous cystadenoma, mature cystic teratoma and hemorrhagic follicular cyst has been reported by Papaziogas *et al.* [9] Shetty *et al.* reported a case of papillary serous carcinoma with mature cystic teratoma. [10]

## CONCLUSION

Ovarian collision tumors are rare. Combination of dermoid cyst with serous cystadenoma is very rare. Such a huge collision tumor with rare combination and its association with torsion have not been reported yet as per the current bibliography.

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