

A RARE CASE REPORT OF SEBACEOUS CARCINOMA ARISING WITHIN A MATURE CYSTIC TERATOMA OF THE OVARY

Dr. Apeksha Malani 3rd year Resident Doctor, Pathology Department

Dr. Savitri Chauhan Associate Professor, Pathology Department

Dr. Kinjal Tandel* 3rd year Resident Doctor, Pathology Department *Corresponding Author

ABSTRACT

Background: Mature cystic teratoma is the most common germ cell tumor of the ovary. Malignant transformation of any components of teratoma is rare, about 2% of cases show malignant transformation in which squamous cell carcinoma is the most common. Pure sebaceous carcinoma is an extremely rare case. **Case Report:** A 70-years old female presented with palpable abdominal mass since 2 months. M.D.C.T. scan of whole abdomen demonstrated a large about 16x22x25 cm solid cystic neoplastic lesion in abdomen, extending from pelvis to epigastric region and both ovaries not seen separate from the lesion suggest malignant ovarian lesion, possibly arising from right ovary. Histopathological evaluation of tumor showed features of sebaceous carcinoma arising in mature cystic teratoma of ovary. **Conclusions:** Sebaceous carcinoma arising in a mature cystic teratoma of ovary is a rare case. This case adds to the rare reports in literature of sebaceous carcinoma arising in mature cystic teratoma. Behavior of sebaceous carcinoma arising in mature cystic teratoma remains poorly understood because of their rarity.

KEYWORDS : Sebaceous carcinoma, Ovary, Mature cystic teratoma

INTRODUCTION

Mature cystic teratoma is the most common germ cell tumor of the ovary¹. In less than 2% of cases, there is a malignant transformation of any component of mature cystic teratoma occur which is a very rare event². Squamous cell carcinoma is the most common malignancy arising from mature cystic teratoma of ovary¹⁻³. Cutaneous type of adnexal tumors like melanoma, basal cell carcinoma and apocrine adenocarcinoma have been also reported as malignancies associated with mature cystic teratoma^{4,5}. Sebaceous carcinoma from mature cystic teratoma is a very rare tumor with an incidence of one to two cases per million persons a year^{6,7,8}.

Case Report

A 70-years old female presented with palpable abdominal mass since 2 months. She had a history of menopause since 20 years.

On examination:

P/A: 34 weeks size palpable mass with side to side mobility was present. Abdomen was tensed with dilated veins.

P/S: Cervix was fused with anterior vaginal wall.

P/V: Bilateral fornix was nontender.

Investigations:

All routine investigations were within normal range.

M.D.C.T. scan of whole abdomen:

Large solid cystic neoplastic lesion in abdomen, extending from pelvis to epigastric region, lesion displaces the small bowel loops. Overall size of the lesion is about 16x22x25 cm and both ovaries not seen separate from the lesion suggest malignant ovarian lesion, possibly arising from right ovary. No evidence of ascites, pelvic or retroperitoneal lymphnode. No evidence of invasion into adjacent structures.

Intervention:

The patient were undergone a total abdominal hysterectomy with bilateral salpingo-oophorectomy.

Pathological Findings

Received specimen of uterus was showing atrophic changes with bilateral fallopian tube and left ovary was unremarkable.

Grossly, right ovarian cyst was measured 27x23x17 cm in size. On cutting, brownish watery fluid came out.



Figure 1: On cutting open, cyst is unilocular with glistening smooth wall.



Figure 2: Cut surface shows yellowish solid growth which is measuring 7x6x3 cm in size.

Microscopically, smooth cyst wall of right ovary was lined by stratified squamous epithelium with underlying skin adnexal structures including sebaceous glands suggest a typical mature cystic teratoma of ovary.

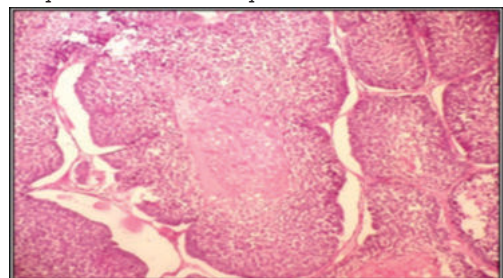


Figure 3: Microscopically, solid growth shows tumor mass

composed of lobular arrangement of atypical sebaceous cells. At places cyst and glandular formation is evident with central comedo necrosis suggesting sebaceous carcinoma.

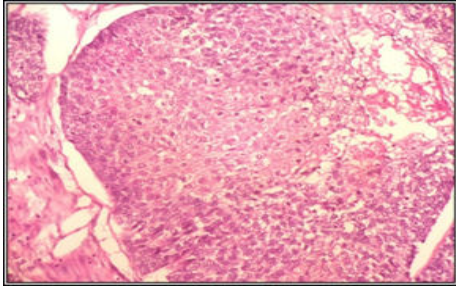


Figure 4: Cells are showing moderate pleomorphism, high N:C ratio and hyperchromatic nuclei with vacuolated cytoplasm and abnormal mitosis is also evident.

DISCUSSION

Teratomas are common neoplasms in human. In ovary, 95% teratomas are mature and cystic². Morphologically they are composed of parts which are derived from ectoderm, mesoderm and endoderm⁹. Malignant transformation of any components of teratoma is rare, about 0.2-2% of cases show malignant transformation^{10,11,12} in which squamous cell carcinoma is the most common and sebaceous carcinoma is the rarest one.

Features that are associated with this transformation are: (i) patient who is older than 45 years; (ii) a tumor greater than 10 cm in diameter; (iii) a rapid growth rate and (iv) imaging findings, like intratumoral low-resistance flux on Doppler ultrasound^{13,14}.

Histologic examination of sebaceous carcinoma shows atypical sebaceous cells are at various level of differentiation which are arranged in lobular pattern surrounded by fibrovascular stroma. In well differentiated carcinoma, the cells are having vacuolated and foamy cytoplasm¹⁵. Squamous differentiation is not a rare finding. Pleomorphic nuclei, prominent nucleoli and mitotic figures can also be seen.

CONCLUSIONS

Even though Sebaceous Carcinoma arising in a mature cystic teratoma of ovary is a rare case – a clear diagnosis made out on the basis of histopathological criteria. Behavior of sebaceous carcinoma arising in mature cystic teratoma remains poorly understood because of their rarity.

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