

# Simultaneous Metastasis of Carcinoid and Squamous Cell Carcinoma in a Case of Malignant Transformation Arising in Ovarian Mature Cystic Teratoma with Mature Cystic Teratoma of Contralateral Ovary

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## Abstract

Mature cystic Teratoma (MCT) is a benign ovarian tumour which undergoes malignant transformation as a rare complication with a reported incidence of 1.7%. It occurs frequently in post-menopausal women and carries a poor prognosis.

Ovarian Carcinoids are uncommonly associated with mature cystic teratomas. Carcinoids rarely metastasize. We report a rare case of metastasis of Carcinoid and Squamous cell carcinoma(SCC) in a case of Squamous cell carcinoma arising in MCT with MCT of contralateral ovary in a post-menopausal lady. She had no clinical manifestation of carcinoid syndrome.

## Introduction

MCT comprise 35% of ovarian neoplasms<sup>1,2</sup> with bilateral involvement in 10-15% of cases. Malignant transformation can occur in MCT.<sup>3</sup>

Squamous cell carcinoma is the commonest malignancy seen in 80% of cases.<sup>1,3</sup> Majority of primary ovarian carcinoids are seen in association with MCT.<sup>1,2,4</sup> Insular pattern is commonly encountered(60%) in primary ovarian carcinoids while trabecular pattern is less commonly observed (20%). We found metastatic foci of squamous cell carcinoma amidst trabecular carcinoid in a lymphnode.

## Case Report

A forty four year old, post-menopausal lady was referred to Gynaecologist for pain in abdomen of two months duration. Clinical examination showed a right sided huge pelvic mass. Ultrasonography showed large, predominantly cystic pelvic mass measuring 28 x 15 x 13 cms suggestive of ovarian tumour.

CA125 levels were -514.9 u/ml and CT scan

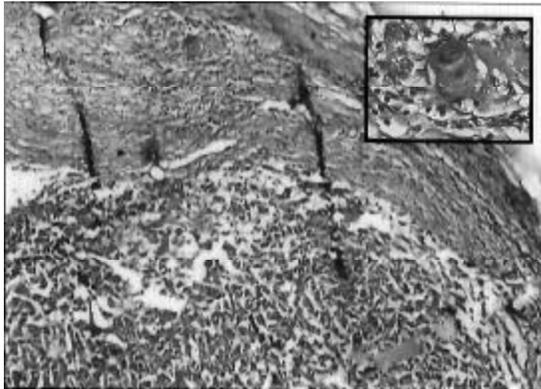
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revealed a right sided heterogeneous pelvic mass extending to lower abdomen with evidence of calcification suggestive of ovarian mass with pelvic lymphadenopathy. She underwent total hysterectomy with right quadrant hemicolectomy and lymphnode resection.

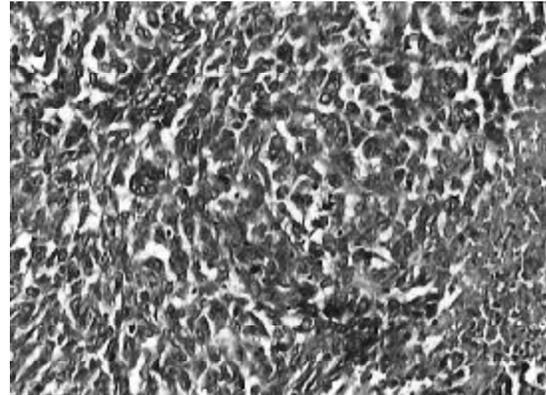
## Pathological findings

Gross : We received panhysterectomy specimen. The uterus and cervix together measured 14 x 9 x 4 cm. Right ovary was enlarged, cystic and measured 18 x 9 x 6 cm. Cut section showed a grey-tan tumour with variegated appearance. Both the fallopian tubes were normal. Left ovary was cystic and measured 5 x 4 x 2 cm. Cut section revealed plug of hair and waxy sebaceous material. Omnectomy and hemicolectomy specimen were unremarkable and pelvic lymphnodes grossly were small with no tumour involvement.

Microscopy: H and E stained sections showed right ovary with a tumour composed of sheets of pleomorphic polygonal cells with hyperchromatic nuclei and eosinophilic cytoplasm along with numerous keratin pearls. Adjacent tissue showed teratomatous elements in the form of cysts lined by stratified squamous epithelium with adnexae, glial tissue and mucous glands. Left ovary also showed MCT without foci of malignant element. One of the lymphnode showed metastatic foci of trabecular carcinoid and few pearls amidst the trabeculae.



*Fig. 1 :Shows lymphnode with replacement of architecture by a tumour composed of trabeculae and ribbons of small cells with finely stippled chromatin and scanty cytoplasm. H & E, x 10.*



*Fig. 2 :Shows higher magnification of the lymphnode with metastatic trabecular carcinoid and foci of pearls amidst carcinoid. Inset to highlight pearl. H & E, x 40.*

## Discussion

The teratomas are classified as mature, immature and monodermal teratomas.<sup>9</sup> MCT comprise 90% of all cases<sup>4</sup> with mean age range of 35-45 years. In patients older than 45 years, malignant transformation is common. Average age is fifty years.<sup>5</sup> Our patient presented at forty five years of age. Rapid growth, loss of weight, pain, ascites, constipation, diarrhoea, dyspareunia are symptoms indicating malignancy. In our case patient had an increasing abdominal mass associated with pain. In the present case, CT findings indicated malignancy. CA 125 levels more than 35 u/ml and presence of squamous cell carcinoma antigen(SCC Ag) confirms malignancy. In our case, although SccAg was not done, CA 125 levels were markedly raised, indicating malignant change.

Ovarian carcinoids are uncommon tumours and are classified as insular, trabecular, strumal and mucinous types.<sup>2,6</sup> Insular types are most common(70%); derived from midgut and are known to be associated with carcinoid syndrome.<sup>6</sup> Trabecular carcinoids are uncommon (20%), derived from

midgut or hindgut and are never associated with carcinoid syndrome.<sup>2,6</sup> Primary trabecular or ribbon carcinoids are invariably unilateral and metastasize rarely.<sup>6,7</sup> They form a nodule within cystic teratoma, may vary from microscopical to large tumours measuring upto 20 cms.<sup>2</sup> Metastatic carcinoids are nearly always bilateral and scattered deposits are present throughout both the ovaries.<sup>2,6,7</sup> Presence of teratomatous elements exclude metastatic carcinoid.<sup>1,7</sup> In our case, we found carcinoid metastatic to pelvic lymphnode.

Association of carcinoid with MCT as well as with malignant MCT is known to occur.<sup>3</sup> In present case, we found foci of SCC amidst metastatic carcinoid. Such simultaneous occurrence of metastasis has not been reported as yet. With malignant MCT, prognosis is unfavourable, however prognosis is better with squamous differentiation and until the tumour is confined to ovary, five year survival is 63%. Treatment for malignant MCT includes hysterectomy with bilateral salpingo-oophorectomy with extended omnectomy. Young patients with unilateral

carcinoid are treated with one sided salpingo-oophorectomy. Post-menopausal patients are treated with bilateral salpingo-oophorectomy with pelvic exentration.<sup>7</sup>

To conclude, lymphnodes should be carefully searched for metastasis in all cases of malignant MCT. Such foci may give rise to recurrence therefore, careful follow-up of patient is must. Our patient is well, till date, two years after surgery.

#### Abbreviations

Mature cystic Teratoma (MCT)

Squamous cell carcinoma (SCC).

#### References

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#### **SURGICAL VERSUS NONSURGICAL TREATMENT FOR LUMBAR SPINAL STENOSIS**

Lumbar spinal stenosis is the most common reason for spinal surgery in patients over the age of 65 years. This randomized clinical trial compared surgical decompression with nonsurgical therapy for spinal stenosis without spondylolisthesis. Although the trial was limited by frequent crossover between the two randomized groups and therefore was not definitive, the findings favoured surgical decompression over nonsurgical care for this common spine disorder.

**N Engl J Med, 2008; 358 : 770.**