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STRUMAL CARCINOID: A RARE CASE REPORT AND LITERATURE REVIEW

Obstetrics & Gynaecology

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ABSTRACT

Strumal carcinoid represents a rare firm of ovarian teratoma, consists of both thyroid tissue of carcinoid structure. The carcinoid component is well differentiated neuroendocrine tumor with excellent prognosis. Strumal carcinoid tumor are commonly found in peri-menopausal women who are open to surgical method of treatment.
In this report we present a 50 year old female, P4L4 Strumal carcinoid, confirmed by histopathology.

KEYWORDS

INTRODUCTION

Strumal carcinoid is an ovarian teratoma, composed of thyroid tissue of teratomatous origin and carcinoid structures. The carcinoid component is considered primary and not metastatic in terms of several criterias such as unilaterality, uninodular growth, presence of mucinous cystic element and tumor size. In the ovary, carcinoid tumor has an incidence of 0.5 to 1.2 of all tumor[1].However strumal carcinoids is a type of cancer with excellent prognosis when it is localized in the ovary[2]

Primary ovarian carcinoids are divided into 4 subtypes[3, 14]: insular, trabecular, goitre and mucinous type.

In this study we present a rare case of primary ovarian carcinoid tumor with microscopic features suggestive of mature thyroid tissue with the tumor cells arranged in trabecular and insular pattern.

Case presentation

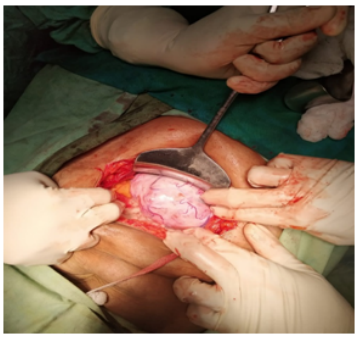
50years postmenopausal lady P4L4 with tubal ligation done 15years back presented to our out patient department with chief complaint of pain & distension in abdomen since 20days.Patient was known case of hypertension since 3 years, asthmatic since 30 years, for which she was on treatment. Patient had no other surgical history. On examination General built - fair, afebrile , pulse and blood pressure- Within normal limits, per abdomen was soft ,no guarding, tenderness or rigidity per speculum - cervix of vagina healthy.

On per vaginal examination- uterus was normal size slightly deviated to left side. right fornix-solid cystic mass of size 7×6 cm approximately, mobile ,non tender, separate from uterus.

Investigation reports were as follows –Hemoglobin- 10.5gm, WBC count- 12600, platelet- 416000 ALP-59u/l, total bili-0.6 mg/dl. TSH-3.54mcIU/ml, CA-125-46,

AFP-1ng/ml, CEA- 4mg/ml.
USG(A+P)-suggestive of - Uterus -6.7×4.1×3.2 cm, ET-10.7mm ,Right ovary measures -8.0x4.1x3.2cm with few echogenic foci within. echogenic area measures 3.1x2.5cm likely suggestive of mucinous cystadenoma of ovary .Patient was taken for exploratory laparotomy with ovarian cyst removal followed by Hysterectomy, with bilateral salphingo ophorectomy.

Intra-op :-



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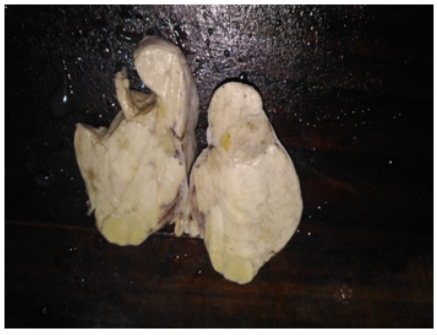
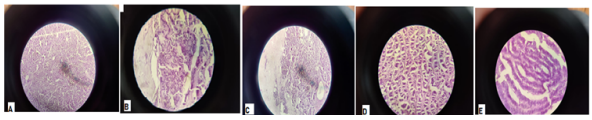
Cystic mass arising from right adnexa, mobile Non adherent mass measuring approximately 8cm x9cm x6cm. Right ovary not seen separately from the mass.

Gross



Right ovary mass measuring 10x8x5cm, on cut section show cystic type consist of y ellow colored sticky material.

Microscopy



Multiple sections studied through the right ovarian mass reveal a tumour arranged in trabecular & insular pattern with intervening ovarian & dense collagenous stroma. Tumor cells are uniform with abundant cytoplasm with coarse chromatin & rare mitosis.

Sections studied also reveal mature thyroid tissue with small & large follicles lined by layer of columnar, cuboidal and flattened epithelium & filled with colloid, focally showing hyperplasia.

DISCUSSION

Strumal carcinoid occurs commonly in pre & post menopausal women , with an average age at incidence of 53yrs [4]. Most of the cases are

unilateral in origin. However Zahradka & Sctulz reported one case in which struma carcinoid found in both sides of ovaries[5].

Patient with struma carcinoid of ovary present with no obvious symptoms & most of them attend the hospital because of lower abdominal masses that are found incidentally. In our study, the patient had pain & distension of abdomen and had underwent Radiological investigations for the same Long term complication may be the main symptom in a small number of patients.

Motoyama et al identified that peptide YY produced from cells of strumal carcinoid tumor causes constipation[6,12].

Some patients presents with endocrine dysfunction. Robboy & Sculty summarized 50 cases of strumal carcinoid of ovary & found that 8% of patients showed increased levels of steroid hormones & the thyroid follicles of tumor tissues played a role in thyroid function resulting in hyperthyroidism[7].

Ashton reported a case of strumal carcinoid of ovary with hyperinsulinemia, hypoglycemia & pigmentation[8].

The patient in our study showed no signs of endocrine dysfunction

CONCLUSION

The Strumal carcinoid of ovary has no typical clinical symptoms & no specific features in radiologic examination. Therefore, a correct diagnosis is difficult before surgery. Histopathological & immunohistologic examinations are gold standard for diagnosis of strumal carcinoid of ovary[9].

The histopathological examination always shows thyroid adenomatous changes & signs of carcinoid tumor[16].

Surgical treatment is the main therapeutic option. For young woman, the affected ovary & fallopian tube should be resected[10].However, the patient with beyond reproductive age, the whole uterus, bilateral fallopian tubes could be resected.

In our case, strumal carcinoid occurred in an elderly woman whose symptoms were abdominal pain & distension. Complete surgical resection of the whole uterus, bilateral ovaries & fallopian tubes was performed. Histopathological examination confirmed the diagnosis of strumal carcinoid of ovary.

Strumal carcinoid tumor of ovary is often associated with teratoma which can be malignant & the thyroid component can also become thyroid Papillary or follicular carcinomas[11]. In such cases surgical treatment plus additional chemotherapy or radiotherapy should be applied.

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