CASE REPORT

GRANULOSA CELL TUMOUR OF THE OVARY

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ABSTRACT: Granulosa cell tumour of the ovary is rare neoplasm. They belong to the group of ovarian sex-cord stromal tumour. It represents less than 2% of all ovarian tumour, but account for 6% of all ovarian malignancy. (1) The prognosis of Juvenile Granulosa cell tumours is excellent tumour recurrence and metastasis is rare, where as Adult are low- grade indolent malignant neoplasm, that display a significant propensity for recurrence and metastasis and can complicate management.

KEY WORDS: Granulosa cell tumour, sex-cord tumour, Call-Exner bodies

INTRODUCTION: The spectrum of ovarian neoplasm covers an extremely wide range of tumours. The best recognised of these are epithelial cell tumour, and Granulosa cell tumour is the less common variant and it accounts for 70% of all sex-cord tumour. (2) Based on histopathology findings two histological types of granulosa cell tumours can be distinguished Juvenile and Adult type. The adult type of granulosa cell tumour is more common (95%) than the juvenile type and usually causes symptoms that are related to excessive estrogen production, such as vaginal bleeding, endometrial hyperplasia and carcinoma. Here we report a case of huge granulosa cell tumour of ovary in a postmenopausal woman.

CASE REPORT: A 48 years old P3, L3 post menopausal woman attended our outpatient dept. With complaint of bleeding and passage of clot for two weeks duration. Although she had big mass in the abdomen she was not aware of that. She attained menopause 8 years back and her last child birth was 18 yrs back. Her previous menstrual cycles was regular bleeding with average of around 5 days and every 30 days and there was no history of any oral contraception use. On clinical examination a large palpable mass occupying whole of the abdomen, firm in consistency, the mobility was restricted. No other organomegaly found. Her cardio-pulmonary system revealed no abnormality. External genitalia appears healthy. On bimanual examination same mass felt through all fornices and uterus could not be felt separately from the mass. Ultrasonography shows large hyperechoic mass with necrotic areas within the mass and normal uterus of size 8.3x4.7x5.3 cms. Endometrial thickness was 15 mm. Histopathological examination of endometrial biopsy shows simple glandular hyperplasia with no evidence of malignancy. Cervical biopsy is suggestive of chronic cervicitis. Her CA-125 value was 18ng/ml. Rest of the report were within normal limits.

The patient underwent laparotomy. Laparotomy findings are left ovarian mass of 30x20 cms with smooth surface with intact capsule, atrophic right ovary, and no ascites. No adhesions to the adjacent organs, liver, under surface of diaphragm are unremarkable. However parts of omentum appeared minimally indurated. Peritoneal washing was collected and sent for cytology examination. Considering the age of the patient Total Abdominal Hysterectomy with bilateral salpingo-oophorectomy and partial omentectomy was performed.

Gross appearance of the tumour shows smooth surface with intact capsule, partially solid and partially cystic in nature. Cut sections shows grey-white to yellow in colour with areas of cystic,

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haemorrhagic and necrosis. Cytology of peritoneal washing shows no malignant cells. Histopathology report revealed large ovoid cells with moderate to high atypia and scanty cytoplasm, Call-Exner bodies present, few cells with coffee bean nucleolus seen. Some foci with high mitosis shows 7-8 mitotic figures per 10x HPF. No evidence of capsular penetration or extra ovarian involvement. Right ovary shows inclusion cyst. Sections from omentum show no evidence of tumour deposits.

DISCUSSION: Generally Granulosa Cell Tumour have low malignant potential and the prognosis is usually good. Juvenile type tumours have better prognosis than the adult type. Prognostic factors are important because the management of advanced or recurrent GCT may not be as simple and favourable as early stages of disease. A surgery remains the treatment of choice and the prognosis is largely depends on the tumour stage at the time of diagnosis and treatment. In older women, a Total Abdominal hysterectomy and bilateral salpingo oophorectomy are typically performed. (3) In women of child bearing ages or who desire for child, a more conservative unilateral salpingo-oophorectomy may be performed, assuming that a careful staging reveals that the disease has not extended outside of the involved ovary and concomitant uterine cancer has been excluded. Post operative adjuvant therapy may be considered for high risk women. A tendency of late recurrence as late as 25 years after initial diagnosis has been reported with GCT. (4) Therefore, adequate informations including the low incidence of recurrence should be provided through patient counselling for a durable trial.

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Figure-1: Cut section ovarian tumour showing areas of cystic, haemorrhagic and necrosis

Figure-2(a)

Figure-2(b)

Figure-2 (a, b): Showing histopathology of granulosa cell tumour of the ovary.

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