



Adult Granulose Cell Tumour with Fibroma Together in Same Ovary- An Unusual Combination

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ABSTRACT

There are three main types of primary ovarian tumours i.e. surface epithelial tumours, sex cord stromal tumours and germ cell tumours. Sex cord stromal tumours comprise 10% of all ovarian tumours. Majority of them belong to fibroma thecoma group and only about 1% tumours are malignant granulosa cell tumours. Combinations of different types of sex cord stromal tumours occur for example Gynandroblastoma. We report a combination of adult granulosa cell tumour and fibroma in same ovary. This combination is not described in standard textbooks.

Key words: Adult granulosa cell tumour, fibroma.

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INTRODUCTION

Adult granulosa cell tumours are mostly seen in post menopausal women. These tumours secrete oestrogen and hence the usual presenting symptom is postmenopausal bleeding [1, 2]. Endometrial biopsy reveals endometrial hyperplasia in 30-40% of patients and endometrial adenocarcinoma in 5-10% of them. Most tumours are confined to the ovary at the time of diagnosis. This is seen in 80-90% of patients. Immunohistochemistry is useful in the diagnosis of these tumours. Nearly all are positive for Vimentin, Inhibin and calretenin. Ovarian fibromas are most common tumours of sex cord stromal category. These tumours occur at all ages with a peak in postmenopausal age. They are mostly benign. Here, we report an unusual case of adult granulosa cell tumour and a fibroma occurring in the same ovary. This combination of one benign and one malignant type of sex cord stromal tumours occurring together in one ovary is quite rare and is not mentioned in standard textbooks.

CASE REPORT

A 70 year old woman presented with post menopausal bleeding. Imaging studies revealed right sided complex ovarian cyst. We received hysterectomy specimen with bilateral salpingo-oophorectomy.

Gross specimen

Right ovary measured 6x6 cm. External surface was nodular. Cut surface showed a well demarcated homogenous, firm, white area with adjacent area showing yellow white solid areas with cystic change and areas of haemorrhage.

The other ovary was also partly cystic. Uterus, cervix, and bilateral fallopian tubes appeared normal.



Figure 1: Ovarian tumour showing solid white areas with cystic change and haemorrhages .

Microscopic description

Multiple sections were studied. They revealed a solid cystic tumour with areas of haemorrhage. The solid component showed sheets and lobules of tumour cells having eosinophilic cytoplasm and round to oval nuclei with nuclear grooves. There are areas of cystic degeneration seen. These solid areas show positivity for Inhibin and Calretinin and negative for EMA. Ki67 showed low index. Another area showed intersecting bundles of spindle to ovoid fibroblastic cells with bland nuclei. Stroma shows extensive collagenisation, hyalinisation and focal calcification.

Other ovary showed serous cyst adenofibroma.

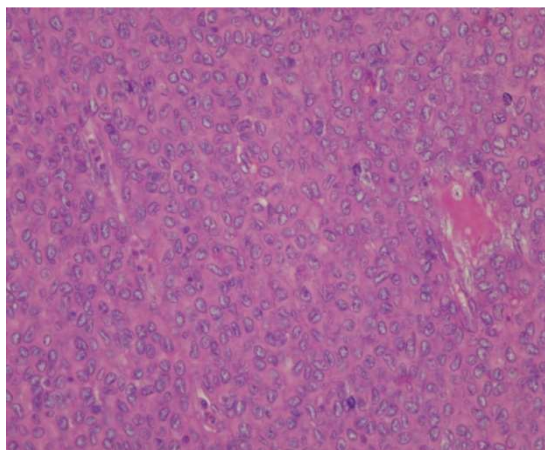


Figure 2: Solid area showing Adult granulosa cell tumour cells with prominent nuclear grooves.(40X)

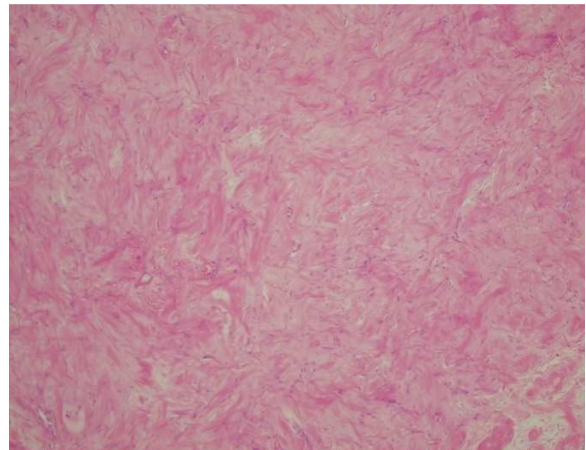


Figure 3: Another area of ovary showing intersecting bundles of fibroblasts.(40x)

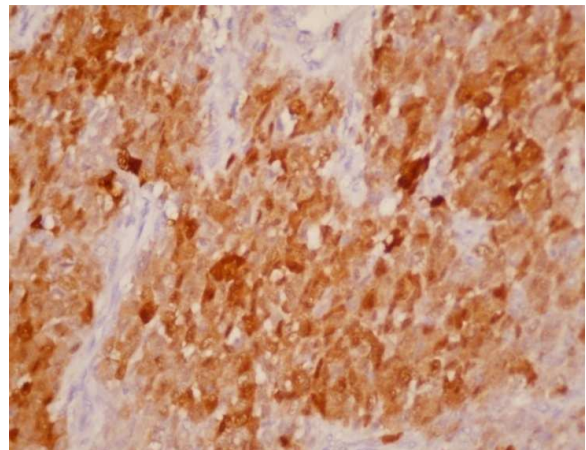


Figure 4: Granulosa cell tumour cells showing strong positivity for Calretinin. (40x)

DISCUSSION

A combination of adult granulosa cell tumour with a fibroma is extremely rare. Granulosa cell tumours are malignant but are mostly detected early at stage-1 when they are still confined to the ovary. They do not recur if excised soon. They present with post menopausal bleeding. Surgical excision is the treatment of choice. And a follow up is needed. Fibromas are quite common tumours and surgical excision is needed if become large in size and become symptomatic.

Granulosa cell tumour shows strong positivity for Inhibin and Calretinin and negative for epithelial membrane antigen [3]. Sex cord stromal tumours of mixed or unclassified types are few like sex cord tumour with annular tubules, Gynandroblastoma and sex cord stromal tumour NOS [4]. The tumour in this case should be

treated as adult granulosa cell tumour as it is the malignant element. The benign fibroma part would not have created any symptoms on its own.

CONCLUSION

This entity is a new combination noted in sex cord stromal tumours group. It is not mentioned in any of the standard textbooks. Hence, we are reporting this tumour combination for its rarity.

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