

**Case Report****A case of virilising steroid cell tumour of ovary**Saravanan E^{*1}, Anirudhan TN¹, Subhalakshmi R¹¹Department of Pathology, Karpaga Vinayaga Institute of Medical Sciences, GST Road, Chinnakolambakkam, Palayanoor P.O, Madurantakam T.K, Kanchipuram, Tamil Nadu, India**ARTICLE INFO:****Article history:**

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ABSTRACT

A middle aged female patient presented to our Gynaec OPD with acute onset of virilising symptoms and vague abdominal pain. The patient's biochemical values were normal except for a raised serum testosterone level and a raised CA125 level. Ultrasound and Computed tomography revealed an ovarian mass with mild ascites that appeared to be a yellowish solid ovarian tumour on gross examination. Microscopic examination showed a neoplasm composed of medium sized cells with clear cytoplasm and some with eosinophilic granular cytoplasm. The diagnosis of Benign steroid cell tumour of ovary, not otherwise specified (NOS-type) was made. The case is presented for its rarity.

Introduction

Ovarian steroid cell tumours constitute a rare entity with distinct clinical and pathological features whose knowledge is essential for timely intervention and management. Here, we

Case Report

A 32 years old female patient presented with a 4 weeks history of vague abdominal pain. She also complained of change in voice, amenorrhoea and appearance of facial hair. There was no significant past medical history or family history. On general examination, the patient was moderately built, anaemic with normal CVS and RS examination. Her vitals were normal. Examination of the abdomen revealed mild ascites and the presence of a vague abdominal mass in the left iliac fossa.

Discussion

Ultrasound examination of the Abdomen and Pelvis revealed a 7.1 x 5.8 cm solid ovarian mass with mild ascites. A Computed Tomography of the Abdomen and pelvis confirmed the ultrasonographic findings.

report an ovarian steroid cell tumour in a middle-aged female who presented with virilising symptoms to the OPD.

All haematological and biochemical values of the patient were normal except for a raised serum testosterone level of 2.2 ng/mL and a raised CA 125 level of 476.6 U/mL.

The patient underwent surgery and 1200 ml of ascitic fluid was removed. A total abdominal hysterectomy with bilateral salpingo-oophorectomy, omentectomy and peritoneal biopsy was performed. Grossly, the tumour which was capsulated and greasy yellow in colour measured 7 x 5.5 x 3.5 cm in size and was well circumscribed with a smooth yellow to orange cut surface. Microscopic examination showed a neoplasm composed of clusters and cords of medium cells with distinct cell membranes, granular eosinophilic cytoplasm or vacuolated cytoplasm with round centrally placed nuclei and occasional single nucleoli. No mitotic figures were identified. There was a scant intervening stroma. The neoplasm showed occasional foci of necrosis and haemorrhage.

Based on the clinical, imaging and pathological features, a diagnosis of benign steroid cell tumour of ovary, not otherwise specified (NOS type) was made.

*Corresponding Author: Saravanan E, Department of Pathology, Karpaga Vinayaga Institute of Medical Sciences, Tamil Nadu, India. Mobile: +91- 9840037437; E-Mail: eshwar.pathos@gmail.com

The patient's hormone levels normalised after treatment and her virilising symptoms were revealed. The patient is on follow-up.

Steroid cell tumours are defined by the World Health Organization (WHO) as tumours that are composed entirely or predominantly (greater than 90%) of cells that resemble steroid hormone-secreting cells [1,2]. This category includes the stromal luteoma, steroid cell tumour, not further classified and the Leydig cell tumours that do not have another component.

Hayes and Scully[3] did a clinicopathological analysis of 63 cases of ovarian steroid cell tumours not otherwise specified and analysed the clinical features, pathological findings and prognosis. According to the study, virilisation was the most common presenting complaint of the patients followed by

estrogenic manifestations and hypercortisolemia with Cushing's syndrome. The best pathological correlates of malignancy were 2 or more mitotic figures per 10 High power fields, necrosis, a diameter of 7cm or greater, haemorrhage and grade 2 or 3 nuclear atypia.

Ye *et al* also discovered similar features in their clinicopathological study of 8 ovarian steroid cell tumour cases and presented their findings [4,5,6,7].

Several other authors worldwide have reported the findings of this rare tumour[5]. Knowledge about this rare entity is important for prompt diagnosis and treatment of the affected patients.



Fig 1: Gross picture of the resected ovarian tumour



Fig 2: Cut section of the tumour

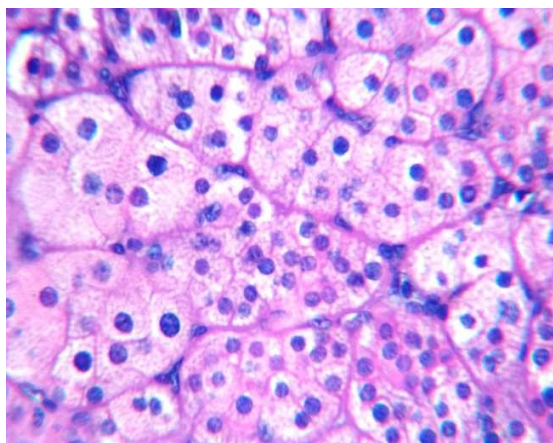


Fig 3: Microscopic view of tumour cells H&E 400x

Conflict of interest statement

We declare that we have no conflict of interest.

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