Case Report

A case of virilising steroid cell tumour of ovary

Saravanan E*, Anirudhan TN, Subhalakshmi R

1Department 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:
Received: 31 July 2014
Received in revised form: 15 August 2014
Accepted: 19 August 2014
Available online: 7 September 2014

Keywords:
CA 125, Ovarian tumour, Steroid cell tumour.

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 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 saphingo-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

CODEN (USA): IJPB07
ISSN: 2320-9267
Indian Journal of Pharmaceutical and Biological Research (IJPBR)
Journal homepage: www.ijpbr.in
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
**Conflict of interest statement**

We declare that we have no conflict of interest.

**References**


