DIFFERENT CLINOCOPATHOLOGICAL PRESENTATIONS OF STEROID CELL TUMOUR – THREE RARE CASES

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INTRODUCTION

Steroid cell of the ovary are uncommon tumours (<0.1% of all ovarian neoplasms). We present three cases of steroid cell tumour due to their rarity, differing clinical presentations and the distinct pathology.

	Case 1	Case 2	Case 3
Age	50	69	35
Clinical findings	Heavy menstrual bleeding	Virilisation symptoms - deepening of her voice, frontal balding, clitoromegaly	Feeling a heavy sensation with a palpable lump at lower abdomen, over the past month. On examination, a large soft ,non tender mass.
Pre-op testosterone level	Not done	46.9 (elevated)	Not done
imaging	US pelvis: Right ovarian, thin walled cyst of 3.9x2.4x3.5 cm identified, however, the lesion concerned was not detected.	MRI scan pelvis: Left ovarian mass measuring 4cm	CT abdomen: Large centrally cystic/necrotic abnormality in the pelvis extending to lower abdomen,10x13x16.5 cm. Surrounded by small amount of free fluid that extends to the presacral space .
Type of surgery	Hysterectomy and bilateral salpingo-oophorectomy	Laparoscopic bilateral salpingo-oophorectomy	Right side salpingo-oophorectomy and omental biopsy done. Operative finding :16cm twisted right ovarian mass
Gross findings	Incidental finding of a solid round tumour 2.5mm at the fimbrial end of the left tube	A fragmented ovary and a detached yellowish nodule measuring 40x30x26mm.	An ovarian mass, 150x100x50mm. A lobulated external appearance with an intact capsule. Cut surface, nodular, pale yellow tissue with solid and few scattered cysts.
Microscopy	Small rounded tumour composed of large cells with round nuclei and copious eosinophilic cytoplasm with ceroid pigment. Given the size of the tumour and the histopathological features this was considered to be a benign tumour.	The tumour was composed of sheets of monomorphous cells with rounded or oval nucleus and abundant eosinophilic cytoplasm. Scattered neoplastic cells show pale and strikingly vacuolated cytoplasm. No significant pleomorphism, increase mitotic activity, necrosis or haemorrhage is seen. Focus suspicious of lymphovascular invasion is seen. MF 1/10 HPF. Focal capsular invasion is present.	The tumour comprises of solid sheets and lobules of epitheliod and spindled cells with abundant eosinophilic cytoplasm. The nuclei show moderate pleomorphism and are vesicular with a small nucleolus. The intervening stroma is hypocellular and oedematous. There are multiple small foci of necrosis. Mitoses 4 per 10 HPF. There is no evidence of capsular invasion.
Positive IHC	Not done	Calretinin, inhibin, CD99 and Ki 67 is up to 3%	Calretinin, inhibin, CD99 and reticulin
Negative IHC	Not done	HMB-45, Melan A, S-100, AE1/AE3	CK MNF 116, EMA, GATA 3, PAX 8 and WT 1
Overall impression of the behaviour of the tumour	Benign	Since there was capsular infiltration, a close follow up was advised.	Since this tumour was large, necrotic, with high mitotic activity and nuclear pleomorphism, it was regarded as malignant.
Follow up	No follow up was recommended	Confined to ovary so no adjuvant treatment recommended. Suggested surveillance with testosterone, cross sectional imagining and clinical examination. Two years after virilisation symptoms improved. Currently she is well and asymptomatic, with no evidence of recurrence	Close monitoring with imaging. Currently she is well and asymptomatic, with no evidence of recurrence
Post op testosterone levels	Not done	<0.4	Not done

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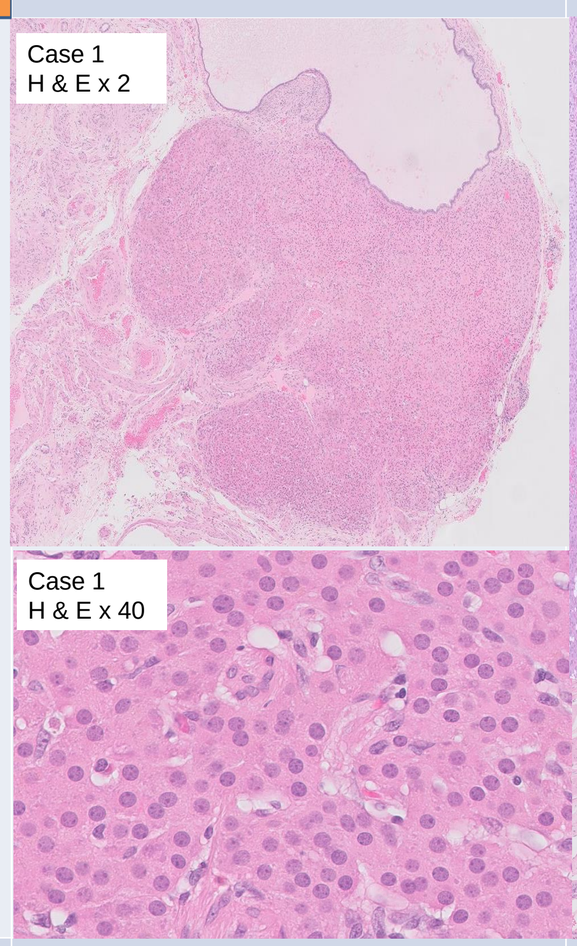

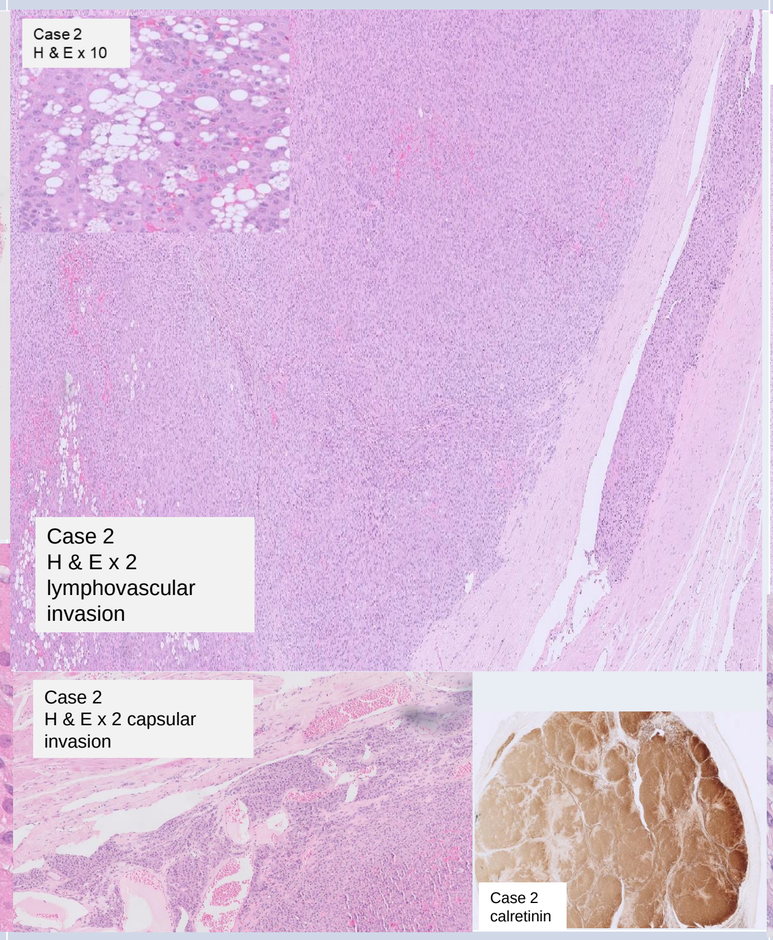

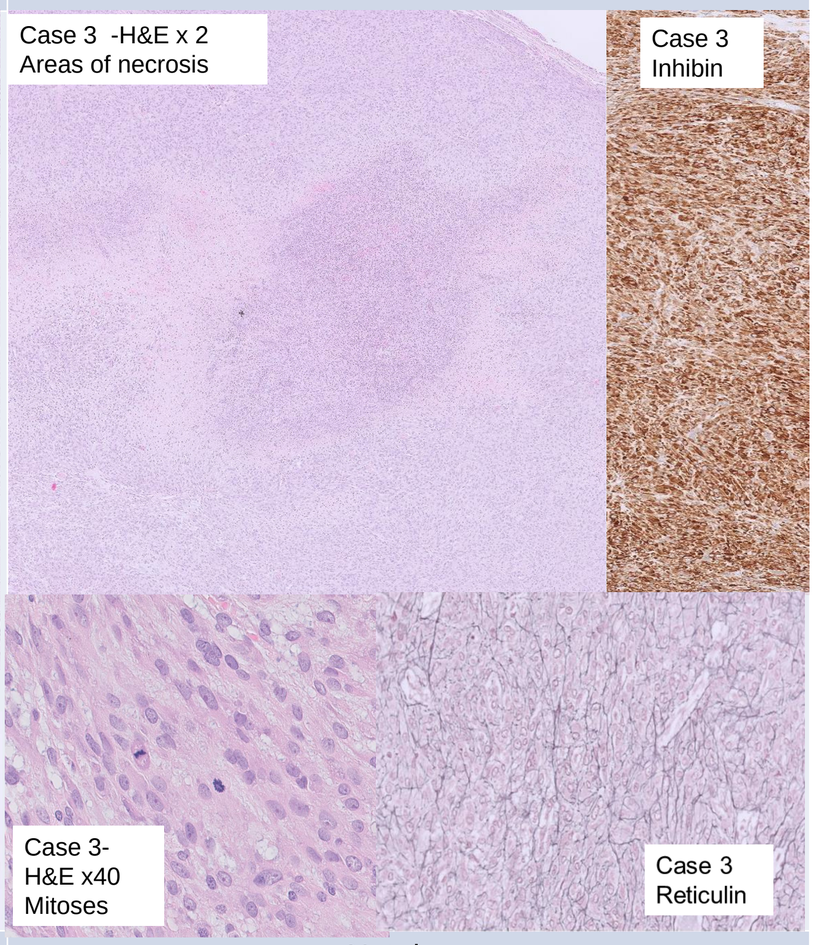

CONCLUSION

Steroid cell tumours show uncertain malignant behaviour and are difficult to diagnose, especially if virilising symptoms are absent. Careful immunohistopathological analysis of submitted specimens can be extremely useful in arriving at a definite diagnosis when the classic presentation is absent.

For any queries related to this case report, please contact Nishani Jayatunge, International Training Fellow by emailing Nishani.Jayatunge@nnuh.nhs.uk