Leighton Little 1617 20 742872 :,Master Joseph

13 YEAR OLD MALE. LEFT ORCHIDECTOMY SPECIMEN KINDLY FORWARDED BY DR WHIBLEY AS THE PATIENT HAS BEEN REFERRED TO THIS INSTITUTION (NO REPORT ISSUED FROM BSUH). FURTHER INFORMATION KINDLY PROVIDED: 1 MONTH HISTORY OF TESTICULAR MASS; PREVIOUS HISTORY OF TRAUMA, MRI: BENIGN LESION DISPLACING THE TESTIS UPWARDS. THE TUMOUR WAS DISCRETE FROM THE TESTIS, AND HISTOLOGICALLY THIS IS A MALIGNANT SPINDLE CELLS LESION WITH MORPHOLOGICALLY SPINDLE CELL RHABDOMYOSARCOMA; HOWEVER NO IMMUNOHISTOCHEMISTRY HAS BEEN PERFORMED AT BSUH. MACROSCOPICALLY THIS WAS A 110X85X75MM ENLARGED TESTICULAR MASS, WITH CENTRAL HAEMORRHAGIC CHANGE, WITH 40X20X20MM TESTIS, WITH MOBILE OVERLYING TUNICA, AND DISCRETE PALE 90X70X75MM PERITESTICULAR MASS PARTIALLY COVERED BY TUNICA VAGINALIS; NO FOCAL LESION IDENTIFIED WITHIN TESTICULAR PARENCHYMA

MACROSCOPY

HISTOLOGY

Sections show predominantly cellular tumour which is abutting but not definitely infiltrating testis, and appears to infiltrate the **around the epididymi, but does not involve the rete testis**. This is composed of loose to sometimes more herring bone fascicles (eg slide 4), of moderately cellular ovoid to spindle cells, often with small nucleoli and fibrillary cytoplasm. There is some variation in cellularity, with cellular areas alternating with more moderately cellular areas. Focally the stroma is myxoid or myxocollagenous. The mitotic index exceeds 20/10hpf, and areas of geographic tumour necrosis is present. Focally (slide 5) there are interspersed polygonal cells with abundant eosinophilic cytoplasm with a suggestion of cross striations, intermingled with some large strap-like cells/ **rhabdomyoblasts.** The tumour is also seen to infiltrate into the adjacent adipose tissue, which is of mature type (eg slide 3). **A proportion of the seminiferous tubules show an immature population, but no ITGCNU or other significant pathology is noted within the testis (the testis has also been seen by Dr S Hazell (consultant uropathologist), who agrees with the findings) .**

The tumour is diffusely and strongly positive for desmin, with diffuse and strong nuclear myogenin and MyoD1 (essentially present in almost all tumour cells). The tumour is negative for SMA, h-caldesmon (very scanty possible focal staining only), CD34, STAT6, SOX10, S100 protein, CD117, SALL4, OCT3/4 and AE1/AE3. The proliferation fraction by MIB1 is very high.

The features are of a high-grade malignant spindle cell neoplasm, with differential diagnosis between spindle cell rhabdomyosarcoma and embryonal rhabdomyosarcoma, with features favouring spindle cell rhabdomyosarcoma (it should be noted that in the paediatric population, spindle cell rhabdomyosarcoma arises most often in the paratesticular region). The morphology does not support alveolar rhabdomyosarcoma, but **molecular investigations are awaited to exclude this, as well as to assess for the presence of EWSR1 and FUS gene rearrangements seen in a minority of rhabdomyosarcoma (NOS), with a further report to follow.**

The tumour extends to the inked aspect of the specimen (noted in the referring macroscopic description as 'areas overlying the mass, not covered by tunica vaginalis are inked blue'), this therefore is in keeping with bare surface at macroscopically, but it is not known whether this represents a true disrupted surface. The cord margin shows fibroadipose tissue with vessels with no tumour. Similarly, no abnormality is seen from the mid cord.

Report to Dr Whibley

Dr Magnus Hallin/Dr Khin Thway
T: soft tissue T scrotum m spindle cell sarcoma

Focally (slide 5) there are interspersed polygonal cells with abundant eosinophilic cytoplasm with a suggestion of cross striations, intermingled with some large strap-like cells **look like rhabdomyoblasts**
embryonal rhabdomyosarcoma, await ihc

Leighton Little 1618 20 742872 :,Master Joseph
13 YEAR OLD MALE. LEFT ORCHIDECTOMY SPECIMEN, FORWARDED FOR RMH REVIEW (1817 2). THIS SPECIMEN: EXCISION OF TISSUE ADJACENT TO LEFT SPERMATIC CORD

MACROSCOPY
The macroscopic description from the referring hospital was as follows: Tissue adjacent to left spermatic cord: a long thin fragment 32x4x4mm embedded whole (A1).

HISTOLOGY

Fibroadipose tissue with large vessels and nerves. A small amounts of skeletal muscle is present peripherally. No tumour or other specific abnormality is identified.

Dr Magnus Hallin/Dr Khin Thway

T: soft tissue t