# ROYAL MARSDEN NHS FOUNDATION TRUST - HISTOPATHOLOGY REPORT
## 745337: FLETT,MR JASPER - NHS Number: 639 842 9478

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| **Lab No** | 3032/20 | **Reported** | 6 Mar 2020 | **Pathologist** | DR THWAY |
| **Source** | Second Opinion | **Sample Received** | 3 Mar 2020 | **Ward** | |
| **Other Hospital** | | | | **Other Hospital Number** | 5902/20 |
| **Sex** | MALE | **Age** | 18 | **Branch** | FULHAM ROAD |
| **Clinical Diagnosis** | | **Operation** | | **Consultant** | THWAY, DR K K Y |

| SITE | DIAGNOSIS |
|---|---|
| SOFT TISSUE AND OTHER CONNECTIVE TISSUE A ( T1X005 ) | RHABDOMYOSARCOMA (Malignant) ( M89003 ) |
| B PELVIS ( TY6000 ) | RHABDOMYOSARCOMA (Malignant) ( M89003 ) |

18 YEAR OLD MALE, WITH LARGE PELVIC/ ?BLADDER MASS. THIS SPECIMEN: INCISIONAL BIOPSY FROM PELVIC MASS, VERY KINDLY FORWARDED BY DR ELSE AT BSUH, AS THE PATIENT HAS BEEN REFERRED HERE. RMH IMAGING: LARGE 11 X 15 X 15 CM, INHOMOGENEOUSLY HYPERMETABOLIC MIDLINE PELVIC SOFT TISSUE MASS OF PRESUMED PROSTATIC ORIGIN, WITH SUBSTANTIAL REGIONAL MASS EFFECT ON RECTUM/ RECTOSIGMOID AND URINARY BLADDER. SMALL CLUSTERED HYPERMETABOLIC LEFT INGUINAL NODES AND DISCRETE HYPERMETABOLIC BILATERAL INTERNAL ILIAC NODES (UP TO 21 MM ON LEFT). NO LIVER OR PULMONARY METASTATIC DISEASE IDENTIFIED. BILATERAL NEPHROSTOMIES WITH DECOMPRESSED RENAL PELVICALICEAL SYSTEMS. URINARY BLADDER DISTENDED WITH NON FDG-AVID URINE, PRESUMABLY REFLECTING STASIS SECONDARY TO OUTFLOW OBSTRUCTION. LEFT LOWER EXTREMITY EDEMA PRESUMABLY SECONDARY TO VENOLYMPHATIC OBSTRUCTION. MARKED AIR/ FECAL COLONIC DISTENSION. RADIOLOGIC OPINION: LARGE PELVIC TUMOR WITH LEFT INGUINAL AND PELVIC NODAL DISEASE AND EXTENSIVE SECONDARY MASS EFFECT. NO PREVIOUS RMH HISTOLOGY

MACROSCOPY
Received from Royal Sussex County Hospital; 1 blocks 4 s/s ref 5902/20

HISTOLOGY

Sections show fragments of fibrous tissue with small amounts of overlying likely transitional epithelium with focal reactive-type atypia but without discernible dysplasia or other significant abnormality, consistent with this representing material from the bladder. The subepithelial tissue contains extensive cellular tumor, composed of nests, streams or patternless arrays of moderately to focally relatively markedly atypical ovoid to more spindled cells, with ovoid vesicular or hyperchromatic nuclei, sometimes medium-sized nucleoli and small amounts of amphophilic cytoplasm, in focally mildly myxoid stroma. Tumor giant cells are interspersed. Mitotic figures are difficult to distinguish from apoptotic bodies, with an index of up to approximately 7/10hpf. No definite necrosis is noted. No morphologic epithelial differentiation or heterologous elements are identified.

The tumor shows strong multifocal desmin and nuclear myogenin expression (present in the majority of cells), and diffuse MyoD1 expression. The tumor is negative for SMA, SOX10, S100 protein, CD31, CD34, ERG, STAT6, AE1/AE3, MNF116 and CAM5.2. The proliferation fraction by MIB1 is very high.

This is a high-grade malignant neoplasm consistent with rhabdomyosarcoma, and morphologically most in keeping with (botryoid) embryonal/ anaplastic embryonal variant. Although a nested pattern is relatively prominent in areas, with occasional wreath-like multinucleate tumor cells and surrounding fibrous septa, the overall morphology is not typical of alveolar rhabdomyosarcoma. However, molecular investigations are awaited to assess for this, with a further report to follow.

Report to Dr Else

Dr Khin Thway