ROYAL MARSDEN NHS FOUNDATION TRUST - HISTOPATHOLOGY REPORT 749380: NHS Number: 448 023 7844

DR HALLIN/DR **Pathologist THWAY** Lab No 6145/20 Reported 18 Jun 2020 Sample Source Referral Received 18 Jun 2020 Ward Other Hospital Number Other Hospital MALE 66 Branch **FULHAM ROAD** Sex Age Clinical **Diagnosis** Operation Consultant HAYES, MR A J **DIAGNOSIS** SITE SOFT TISSUE AND OTHER CONNECTIVE TISSUE FIBROUS HISTIOCYTOMA MALIGNANT A (T1X005) (M88303) FIBROUS HISTIOCYTOMA MALIGNANT

66 YEAR OLD MALE. CLINICAL INFORMATION ON REFERRING REPORT: RETROPERITONEAL MASS INVADING AORTA. LATE RELAPSE NSGCT (30 YEARS). PREVIOUS CHEMO AND RADIOTHERAPY. THIS SPECIMEN: EXCISION OF RETROPERITONEAL MASS FROM MARCH 2019, PREVIOUSLY REPORTED AT SOUTHAMPTON (DR MARKHAM/ DR TILLEY), WITH OPINION SOUGHT FROM RNOH (DR BALOGH, DR TIRABOSCO AND DR AMARY): 'HIGH-GRADE UNDIFFERENTIATED PLEOMORPHIC SARCOMA. IF THIS WAS INCLUDED IN THE RADIATION FIELD, THIS MAY REPRESENT A RADIATION-INDUCED SARCOMA'. NO PREVIOUS RMH HISTOLOGY.

(M88303)

MACROSCOPY

B RETROPERITONEUM (TY4600)

Received from Southampton University Hospitals NHS Trust; 2 blocks 19 s/s ref 8920/19.

HISTOLOGY

The features are as previously described by colleagues, and show fibroadipose tissue containing partially necrotic cellular tumor (described to measure at least 52mm), composed of loose fascicles of moderately to markedly atypical spindle, ovoid and polygonal cells, with vesicular or hyperchromatic nuclei, including prominent bizarre and multinucleate forms. The mitotic index exceeds 20/10hpf, with atypical forms. No epithelial elements or other morphologic lines of differentiation are noted. Focally there is some vacuolation of cells, but no lipoblasts are seen. There are prominent areas of surrounding hemorrhage, but no vasoformation is noted. There are some collections of neutrophils, which may amount to microabscess formation. The surrounding fibrous tissue shows areas of fibrosis and calcification. The adipose tissue is of mature type, with some intersection by fibrous septa containing plump fibroblasts, but no conclusive features of well-differentiated liposarcoma are seen.

Immunohistochemistry from the referring institution shows S100 protein to appear to stain predominantly dendritic cells, but there is also possible expression in scattered tumor nuclei. The tumor is negative for MNF116, EMA, CD34, c-myc, SMA, desmin, h-caldesmon, MDM2 and MelanA. The proliferation fraction by MIB1 is high. MDM2 gene amplification was not detected with FISH.

The features are consistent with high-grade pleomorphic sarcoma, grade 3, which in this setting may represent a radiation-induced neoplasm. Although malignant peripheral nerve sheath tumor cannot be excluded, there is insufficient evidence of this. The original report describes that 'the resection status is uncertain'. Please also see the original reports for further information.

Dr Magnus Hallin/Dr Khin Thway