ROYAL MARSDEN NHS FOUNDATION TRUST - HISTOPATHOLOGY REPORT 749815: W. 1997 - NHS Number: 400 350 9641

Lab No 6955/20 Reported 15 Jul 2020 Pathologist DR HALLIN/DR THWAY Source Internal Operation Sample Received 10 Jul 2020 Ward Sex **FEMALE** Age 73 Branch **FULHAM ROAD** Clinical Diagnosis Operation 10 Jul 2020 Consultant STRAUSS, MR D C

SITE	DIAGNOSIS
A SOFT TISSUE AND OTHER CONNECTIVE TISSUE (T1X005)	FIBROMATOSIS (M76100)
B NECK (TY0600)	FIBROMATOSIS (M76100)
C BACK (TY1100)	FIBROMATOSIS (M76100)

73 YEAR OLD FEMALE. RECENT REVIEW OF OUTSIDE HISTOLOGY OF INCISIONAL BIOPSY FROM SUBCUTANEOUS TISSUE OF THE BACK FROM MAY 2020: MORPHOLOGY SUGGESTIVE OF A MYOFIBROBLASTIC NEOPLASM, SUGGESTING DESMOID-TYPE FIBROMATOSIS, BUT NO MATERIAL WAS AVAILABLE FOR FURTHER INVESTIGATIONS (6683/20). OUTSIDE IMAGING: 35X30X13MM FOCAL LOW ECHO CYSTIC LESION WITHIN THE DEEP FAT FASCIA, WITH NO ABNORMAL VASCULARITY OR SONOGRAPHIC SINISTER FEATURES. RADIOLOGIC OPINION: IN KEEPING WITH INFECTED SEBACEOUS CYST. FISH PERFORMED AT UHB/ THE ROH BIRMINGHAM (PROF CYRIL FISHER) SHOWED NO EVIDENCE OF USP6 GENE REARRANGEMENT. THIS SPECIMEN: CORE BIOPSY FROM MASS ON THE NECK/ UPPER BACK.

MACROSCOPY

'Neck/upper back mass core biopsy': 4 cores ranging from 20-25mm. 1-7) AE

HISTOLOGY

Cores of moderately cellular lesion, composed of loose fascicles of essentially uniform spindle cells with elongated, ovoid, occasionally buckled vesicular nuclei, frequent tiny nucleoli, and fibrillary cytoplasm in delicately collagenous to focally myxocollagenous stroma. The cells are plump, but no definite atypia is seen. Focally, the myxoid change is relatively marked, and in all areas of tumor there is mild to moderate vascularity, of small, capillary-sized vessels or medium-sized or larger thin-walled vessels. Occasional keloid-like fibers are noted (eg slide 1). The mitotic index is variable, but focally 3-5 small mitoses per 10hpf are seen, without atypical forms. No tumor necrosis is noted. The tumor is focally present adjacent to adipose tissue of mature type; a definite infiltrative border with it is not seen. There is a patchy mild chronic inflammatory infiltrate in the surrounding fibroadipose tissue.

The tumor is diffusely and strongly positive for beta-catenin. SMA is essentially negative, with only scanty focal expression in occasional cells. The tumor is negative for desmin, myogenin, CD34, STAT6, S100 protein, SOX10 (scanty focal expression, likely in mast cell population), MUC4 and AE1/AE3. The proliferation fraction by MIB1 is moderate.

This is difficult to interpret. The morphology appears essentially similar to that in the previous material (6683/20). This is a moderately cellular, apparently myofibroblastic tumor, without discernible features of atypia. The morphology appears most in keeping with a relatively myxoid variant of desmoid-type fibromatosis, but the site appears unusual and the patient's age is noted. Beta-catenin mutational analysis is awaited (block 6), with a further report to follow. FISH performed on the previous material by Prof Cyril Fisher showed no evidence of USP6 gene rearrangement; this makes nodular fasciitis less likely (and the morphology is not wholly typical of this). Specific features of sarcoma/ malignancy are not identified in this material.

Dr Magnus Hallin/Dr Khin Thway

