ROYAL MARSDEN NHS FOUNDATION TRUST - HISTOPATHOLOGY REPORT
746726: [redacted] - NHS Number: 442 310 4288

Lab No	6799/20	**Reported**	15 Jul 2020	**Pathologist**	DR HALLIN/DR THWAY
Source	Internal Operation	**Sample Received**	8 Jul 2020	**Ward**	CRITICAL CARE UNIT (CHELSEA)
Sex	MALE	**Age**	77	**Branch**	FULHAM ROAD
Clinical Diagnosis		**Operation**	7 Jul 2020	**Consultant**	HAYES,MR A J

SITE	DIAGNOSIS
SOFT TISSUE AND OTHER CONNECTIVE TISSUE A (T1X005)	DEDIFFERENTIATED LIPOSARCOMA (Malignant) (M88583)
B RETROPERITONEUM (TY4600)	DEDIFFERENTIATED LIPOSARCOMA (Malignant) (M88583)

77 YEAR-OLD MALE. PREVIOUS BIOPSY OF RETROPERITONEAL MASS: PLEOMORPHIC AND SPINDLE CELL SARCOMA, WITH FEATURES IN KEEPING WITH DEDIFFERENTIATED LIPOSARCOMA, GRADE 2-3. FISH SHOWED LOW COPY NUMBER GAIN OF MDM2, POSSIBLY LOW-LEVEL AMPLIFICATION. IMAGING: 14.4 X 9.3 X11.2CM LATERAL RETROPERITONEAL MIXED SOLID-CYSTIC TUMOR, WITH CONTACT WITH LATERAL MID-RIGHT KIDNEY, POSTERIOR 7 AND INFERIOR TIP OF SEGMENT 6 OF LIVER, AND LATERAL ASCENDING COLON. MASS IS SEPARATE FROM PSOAS AND OVERLYING ABDOMINAL WALL MUSCULATURE. SOME OF THE FAT IN MORRISONS POUCH WITH SOME STRANDING/ TRAVERSING VESSELS. NO EVIDENCE OF NODAL OR METASTATIC DISEASE. RADIOLOGIC OPINION: RIGHT RETROPERITONEAL SARCOMA; DEDIFFERENTIATED LIPOSARCOMA SHOULD BE CONSIDERED. THIS SPECIMEN: RESECTION OF SARCOMA, RIGHT RETROPERITONEUM + RIGHT HEMICOLECTOMY, WITH SEPARATE SPECIMENS OF RETROPERITONEAL AND PERINEPHRIC FAT, ?LIPOSARCOMA

MACROSCOPY
A. Retroperitoneal sarcoma + right hemicolectomy: an unorientated specimen comprising of a hemicolectomy with attached firm retroperitoneal tumor mass. The hemicolectomy is comprised of a section of ileum measuring 40mm in length and 17mm in maximum diameter. There is a segment of ascending colon measuring 183mm from cecum to surgical resection margin, x up to 40mm in diameter. The colon mucosa appears macroscopically normal throughout. No appendix is identified. Adjacent to the hemicolectomy there is a large firm retroperitoneal tumor partially covered in fatty tissue. Tumor measures 148x130x103mm. The overall specimen measures 237x152x107mm. The tumor abuts the surgical resection margins but does not appear to breach macroscopically. On slicing the tumor appears heterogeneous with cream and myxoid areas intermixed with necrosis and hemorrhage. Necrosis is approximately 30%. The tumor abuts the surgical resection margins but does not breach. The tumor lies 1mm from closest colon mucosa. Blocks 1) Ileum resection margin. 2) Representative section of ileum. 3) Representative section of ascending colon resection margin. 4) Tumor to closest ascending colon. 5) Tumor to fat surface fatty tissue. 6) Tumor with smooth serosa (area of budding). 7-10) Representative sections of tumor. 11) Tide vessels adjacent to cecum. Tissue and tumor remains. B) Retroperitoneal fat ?liposarcoma: a single piece of fatty tissue measuring 110x64x16mm. On slicing tissue appears to be comprised of blend lipomatous tissue. 12-15) Representative sections of tissue. C) Perinephric fat ?liposarcoma: two pieces of fatty tissue measuring 43x20x13mm and 70x30x21mm. Slicing of the smaller piece reveals normal appearing lipomatous tissue. 16&17) Representative sections of tissue. Slicing of the larger piece reveals normal appearing lipomatous tissue. 18-20) Representative sections of tissue. Tissue remains.

HISTOLOGY
A1-11. Retroperitoneal sarcoma and right hemicolectomy: Sections show cellular tumor, composed of sheets or loose fascicles of markedly atypical spindle to ovoid cells, with numerous bizarre and multinucleate forms, with features similar to those in the previous biopsy (6053/20). The mitotic index is variable, but focally up to 10/10hpf (slide 7) with numerous atypical forms, and there is focal prominent necrosis. The adjacent adipose tissue is of mature type without discernible atypia, and no well-differentiated liposarcomatous component is identified. The tumor is focally close to the ascending colon wall, but is separated from it by fibroadipose tissue, and no infiltration by of the muscularis propria is seen.

The features are of high-grade pleomorphic sarcoma consistent with dedifferentiated liposarcoma, grade 3. The inked peripheral fatty surface shows adipose tissue of mature type without discernible atypia; the tumor is focally approximately 1mm from this inked margin. The smooth surface described macroscopically corresponds to a fibrous pseudocapsule focally around the tumor; the neoplasm is focally seen to ulcerate and breach this fibrous tissue, in keeping with the budding described macroscopically. The ileal resection margin shows unremarkable small bowel mucosa and wall, with mild serositis. There are small amounts of surrounding mature adipose tissue;

no tumor is seen. The representative section from the ileum shows unremarkable small bowel with no tumor, and surrounding mature adipose tissue. The ascending colon resection margin shows large bowel mucosa and wall with no tumor or other significant abnormality, and is surrounded by mature fat without atypia. The section from the tied vessels adjacent to the cecum shows large vessels with surrounding mature adipose tissue; the surface adjacent to the fat shows mild amounts of fibrinoid material and neutrophils; no significant pathology is noted.

B12.-15. Retroperitoneal fat ?liposarcoma:
Sections show differentiated adipocytic tissue with the appearances of normal fat. Small amounts of sparsely cellular fibrous tissue show occasional plump fibroblasts, but no definite atypia is seen, and there is no marked sepatation. No tumor necrosis or mitotic figures are present. It is noted that no conclusive well-differentiated liposarcomatous component was identified in the main specimen.

The features suggest unremarkable adipose tissue rather than lipoma- like atypical lipomatous tumor/ well-differentiated liposarcoma, but FISH for MDM2 amplification status is awaited, with a further report to follow.

C16-20. Perinephric fat ?liposarcoma:
Sections show differentiated adipocytic tissue with similar features to those in specimen B. No cellular atypia, tumor necrosis or mitotic figures are seen.

The features suggest normal fat, rather than lipoma-like atypical lipomatous tumor/ well-differentiated liposarcoma, but FISH for MDM2 amplification status is awaited, with a further report to follow.

Dr Magnus Hallin/Dr Khin Thway