ROYAL MARSDEN NHS FOUNDATION TRUST - HISTOPATHOLOGY REPORT
749835: [redacted] - NHS Number: 410 848 6153

Lab No	6331/20	**Reported**	10 Jul 2020	**Pathologist**	DR HALLIN/DR THWAY
Source	Second Opinion	**Sample Received**	24 Jun 2020	**Ward**	
Other Hospital				**Other Hospital Number**	7990/19
Sex	MALE	**Age**	73	**Branch**	FULHAM ROAD
Clinical Diagnosis		**Operation**		**Consultant**	AL-UTAYEM/KT

SITE	DIAGNOSIS
A SOFT TISSUE AND OTHER CONNECTIVE TISSUE (T1X005)	MORPHOLOGIC DESCRIPTION ONLY / NEOPLASM UNCERTAIN WHETHER BENIGN OR MALIGNANT (M09350 / M80001)
B UPPER EXTREMITY (TY8000)	MORPHOLOGIC DESCRIPTION ONLY / NEOPLASM UNCERTAIN WHETHER BENIGN OR MALIGNANT (M09350 / M80001)

73 YEAR-OLD MALE. THIS SPECIMEN: REVIEW OF OUTSIDE HISTOLOGY OF CORE BIOPSIES FROM RIGHT ARM SENT FOR FURTHER OPINION, PREVIOUSLY REPORTED BY DR AL-UTAYEM IN MAY 2019: ? HAMARTOMA CONTAINING MAINLY NEURAL AND FIBROUS COMPONENT, WHICH WAS FITTING WITH THE ESSENTIALLY BENIGN- APPEARING CLINICAL AND IMAGING FINDINGS IN 2019. MRI: SOLID AND CYSTIC 27MM LESION IN THE SUBCUTANEOUS ADIPOSE LAYER OF THE RIGHT UPPER ARM, DISPLACING AN ADJACENT SUPERFICIAL VEIN AND INDENTING THE MUSCLE LAYER, WITHOUT INVOLVING EITHER OF THESE. THERE ARE SOME CALCIFIC DENSITIES. NATURE DIFFICULT TO DETERMINE ON IMAGING ? EPIDERMOID CYST OR RELATED TO TRAUMA. PLEASE ALSO SEE THE REVIEW OF THE SUBSEQUENT CORE BIOPSY SPECIMEN (6332/20).

MACROSCOPY
Received from Royal Bournemouth & Christchurch Hospitals NHS Trust; 1 block 13 s/s ref 7990/19.

HISTOLOGY

The features are as previously described by Dr Al-Utayem, and show fibroadipose tissue with a variably cellular tumor; in areas, this is composed of patternless arrays or vague cords of essentially uniform, minimally to at most only mildly atypical ovoid cells with ovoid to rounded vesicular nuclei and small nucleoli, with scanty cytoplasm, in moderately collagenous stroma. In other areas, the cells are disposed in patternless arrays or sometimes streams, within collagenous stroma. Many of these cells show similar features to those within the nodular arrangements, with uniform rounded nuclei. In other areas, there are streams of spindle cells with elongated vesicular nuclei and scanty cytoplasm, within the collagenous stroma. Mitotic figures are not prominent, with up to 1-2 mitoses/10hpf without discernible atypical forms, and these are hard to distinguish from scattered apoptotic cells and possible small intermingled histiocytes. The spindle cell population again shows minimal atypia. Focally the surrounding stroma is sparsely to in areas acellular. Very focally, there are tiny areas of possible karyorrhectic debris, with scattered nuclear dust, but conclusive tumor necrosis is not noted. Focally, rounded cells are dispersed in collagenous stroma with a slightly basophilic appearance, but definite chondroid is not seen and while the stroma is in areas quite collagenized or fibrotic with some peripheral areas just suggestive of a possible empty lacuna, conclusive features of tumoral osteoid are not seen, and no bone formation is noted.

Referring immunohistochemistry shows multifocal weak to often moderate CD99, with multifocal strong bcl-2, and some focally moderate EMA expression. There is only relatively scanty moderate desmin expression, and scanty focal F13a positivity. SMA is essentially negative, with only some very scanty staining seen. The tumor is negative for CD31, CD34, S100 protein (only some very scanty moderate cytoplasmic and perhaps nuclear staining in a small cluster of cells at the end of one core) and MNF116. The proliferation fraction by MIB1 is variable, ranging from low to moderate. At RMH, desmin is largely negative, with only very scanty expression in clusters of tumor cells. The tumor is negative for SMA, myogenin (occasional rounded nuclear-like expression in two cells likely reflects granular cytoplasmic staining in mast cells, and is not convincing for expression in tumor), CD34, STAT6, ERG, S100 protein, SOX10, MUC4 and AE1/AE3. The proliferation fraction by MIB1 is low to only very focally low-moderate. INI1 and BRG1 appear largely retained in the ovoid cell population; they are retained in most of the spindle cell population, with some possible loss, but diffuse loss of nuclear BRG1 and INI1 is not noted.

This is difficult to interpret, and is an essentially bland, ovoid and spindle cell neoplasm in densely collagenous stroma. While some of the morphology is reminiscent of sclerosing epithelioid fibrosarcoma/ low-grade fibromyxoid sarcoma, this is not supported immunohistochemically. This has been compared with the subsequent core biopsy

from the same site, and while both show prominent areas of collagenous stroma, the cytology of this specimen appears very different, with no evidence of the marked atypia which was noted in the latter specimen. Moreover, the immunoprofile also appears somewhat different. Although this is in keeping with a mesenchymal neoplasm, the features in this biopsy (6331/20) do not point towards a specific diagnosis, and specific features of malignancy are not identified in this material. Please see the discussion in the review of the subsequent biopsy, RMH 6332/20.

Dr Magnus Hallin/Dr Khin Thway