[redacted] 4437 20 746364 :,Ms Ruth

57 YEAR OLD FEMALE. RECENT REVIEW OF OUTSIDE HISTOLOGY OF CORE BIOPSY OF MESENTERIC MASS: SMOOTH MUSCLE TUMOR WITHOUT DISCERNIBLE ATYPIA, NECROSIS OR MITOSES, FAVORING LEIOMYOMA, AND WITH FEATURES INSUFFICIENT FOR SMOOTH MUSCLE TUMOR OF UNCERTAIN MALIGNANT POTENTIAL. THIS WAS IN STRONG CONTRAST TO THE APPEARANCES ON CT SCANNING, WHICH LOOKED LIKE A LARGE AGGRESSIVE SARCOMA. REPEAT CT SCAN ON THE DAY PRIOR TO SURGERY DEMONSTRATED AN INCREASE IN SIZE, SUGGESTING MALIGNANCY. THIS SPECIMEN: EXCISION OF TUMOR IN SMALL BOWEL MESENTERY, RESECTED WITH SMALL BOWEL AND TRANSVERSE COLON

MACROSCOPY

HISTOLOGY

Sections show an apparently ill-defined, moderately cellular tumor, composed of loose fascicles of relatively uniform, predominantly spindle cells with ovoid to elongated vesicular nuclei, often small punctate nucleoli and moderate amounts of eosinophilic cytoplasm. Focally there is myxoid change (slide 9). The macroscopic description notes the tumor to be present predominantly within the mesenteric fat, and **histologically this may extend into the muscularis propria. Focally (slide 8) nested distributions of bland polygonal/ rounded smooth muscle cells are present (diffusely and strongly positive for desmin, SMA and h-caldesmon), and likely representing native smooth muscle bundles.** Adjacent to the tumor, there is a prominent vascular plexus composed of medium-sized to large, well-formed thin- and predominantly thick-walled vessels, in keeping with an adjacent vascular plexus, rather than part of the neoplasm (slide 9). No definite mitotic figures are seen per 50hpf. No definite tumor necrosis is seen. There is only a sparse chronic inflammatory infiltrate, comprising small lymphocytes. The surrounding adipose tissue is of mature type.

The tumor is diffusely and strongly positive for desmin, SMA and h-caldesmon. The tumor is negative for myogenin, HMB45, MelanA, AE1/AE3 (positive in mesothelial cells and 'submesothelial-like' cells only), ER and PgR (ER and PgR are positive in surrounding, well-formed smooth muscle bundles, which would be in keeping with native structures, but are negative in tumor). The proliferation fraction by MIB1 is low.

The features are consistent with a smooth muscle tumor without discernible features of atypia. However, close follow-up would be warranted. The features do not support PEComa. Inflammatory fibroid polyp and low-grade dedifferentiated liposarcoma appear very unlikely, but PDGFRA and KIT mutational analysis are awaited, as well as FISH for MDM2 amplification status, with a further report to follow. The tumor is present at the inked peripheral edge/margin. The longer bowel segment resection margins show unremarkable small bowel with focal mild serositis. The resection margins from the smaller length of bowel show unremarkable large bowel. The representative sections from the bowel show unremarkable large bowel only.

Dr Magnus Hallin/Dr Khin Thway

T: soft tissue t small bowel t mesentery m smooth muscle tumor of uncertain malignant potential