Background: Angiofibroma of soft tissue (AFST) is a recently described benign soft tissue neoplasm of adults and children characterised by low-grade spindle cells with a myxoid or collagenous stroma bearing very prominent small vasculature.¹ There is a characteristic but non-diagnostic immunohistochemical pattern.² A characteristic AHRR-NCOA2 fusion gene secondary to t(5;8)(p15;q13) is present in approximately two thirds of cases.³

Aims: We present three cases of AFST encountered at RPAH Tissue Pathology in order to outline and explore the clinical, macroscopic, histopathologic, immunohistochemical, and cytogenetic features of this tumour.

Methods: Three cases underwent histopathological and immunohistochemical analysis, as well as presentation at a multidisciplinary soft tissue meeting. One case underwent karyotyping.

Results and conclusions: All three tumours were well-circumscribed encapsulated soft tissue spindle cell tumours of the lower limbs with prominent vasculature and myxoid areas. All cases were negative for vascular markers and SMA (blood vessels highlighted only), as well as negative for S100, pancytokeratin, and MUC4. One case had scattered atypical cells interpreted as degenerative atypia; focal atypia has been reported as an infrequent feature of AFST.^{1,2} One case underwent cytogenetic analysis, revealing a t(5;8)(p14;q13) translocation. The cases are discussed, making comparisons to the available literature. Histologic mimics and the utility of cytogenetics and fluorescence *in situ* hybridisation are discussed.

References

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4. DEDIFFERENTIATED LIPOSARCOMA MASQUERADING AS AN INFLAMMATORY MYOFIBROBLASTIC TUMOUR (IMT) – A CASE REPORT AND REVIEW OF LITERATURE

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Background: The dedifferentiated component of a well-differentiated liposarcoma (WDL) shows a wide histologic variation. Herein, we describe a dedifferentiated liposarcoma with inflammatory myofibroblastic tumour-like (IMT-like) changes. Awareness that dedifferentiated liposarcoma can have prominent IMT-like features can help to prevent misdiagnosis.

Aims: To present a case report and literature review on a dedifferentiated liposarcoma with IMT-like changes.

Methods: A 77-year-old male presented with a parotid/masseter mass. The core biopsy was diagnosed as IMT.

The excision specimen of the parotid/masseter mass showed a solid, encapsulated, yellow tumour (42×35×33 mm). Histologically, the tumour showed two distinct morphology. The central part of the tumour showed bizarre large atypical cells with a brisk inflammatory component composed of neutrophils, eosinophils

and plasma cells. The peripheral part of the tumour showed atypical adipocytes of varying size with occasional recognisable lipoblasts. A wide range of immunohistochemistry stains performed including ALK were all negative. The FISH detected MDM2 amplification. On retrospective analysis the core biopsy appeared to have been taken from the central portion of the tumour.

Results and conclusions: A final diagnosis was given as a WDL with a dedifferentiated component, masquerading as an IMT.

In conclusion, this case illustrates that unequivocal areas of WDL are necessary in diagnosing histological variants. Careful sampling of adipose tissue in and around the tumour for microscopic evidence of WDL, which can be subtle, is essential to prevent a misdiagnosis.

Reference

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5. MULTIPLE UTERINE LIPOMATA: FIRST CASE REPORT

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Background: Although lipoma is the most common soft tissue tumour, pure uterine lipoma is exceptionally rare. There is only a handful of reports of this entity. Uterine lipoma often shows non-specific clinical and frequently worrisome radiological features.

Aims: The aim of this report is to shed the light on a rare diagnostic entity with broad differential diagnosis, which can occasionally raise concern for malignancy radiologically. To date, no previous reports of multiple uterine lipomata are identified in the literature.

Methods: We report a case of 59-year-old woman with features of fibroid uterus. Radiologically, multiple benign leiomyomata were suspected. A total laparoscopic hysterectomy was performed. Gross examination revealed three intramural fatty masses ranging in size between 2 and 8 cm. Microscopically the tumours were composed of mature adipocytes separated by thin fibrovascular septae. No leiomyomata were identified. There was no evidence of atypia or malignancy.

Conclusions: This is the first report of multiple intramural benign lipomata in a uterus. Previous cases of a single uterine lipoma have been reported. A uterine lipoma can be mistaken for carcinomas, especially in older patients with rapid progression. Several theories have been proposed as an explanation, including fatty tissue metaplasia, misplaced embryonic adipocytes and proliferation of perivascular fat cells. The presence of multiple uterine lipomata in our case suggests a histogenic proclivity to form these lesions beyond a mere incidental lipomatous differentiation. Further studies may help better understanding of this peculiar condition.

6. AUDIT OF BREAST SCREENING CORE BIOPSY DIAGNOSTIC PERFORMANCE MEASURES AT PATHWEST FIONA STANLEY HOSPITAL (FSH) FROM 2015 TO 2016

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