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Case Report

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Giant Vascular Eccrine Spiradenoma of the Thigh: A Rare Painful Adnexal Tumor in a 40-Year-Old Man

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ABSTRACT

We report a rare case of a giant vascular eccrine spiradenoma arising in the thigh of a 40-year-old man. The lesion measured 4 cm, was clinically painful, and was evaluated radiologically and histopathologically. The tumour showed the classical biphasic cellular architecture of spiradenoma with prominent vascularized stroma. Immunohistochemistry demonstrated diffuse positivity for pancytokeratin AE1/AE3, strong SMA positivity, and complete negativity for C34. Complete excision resulted in uneventful recovery with no recurrence after 12 months.

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Introduction

Eccrine spiradenoma is a rare benign sweat gland tumour, classically presenting as a small painful nodule. Lesions exceeding 3 cm-referred to as giant spiradenomas-are very uncommon and may mimic other neoplasms, especially when highly vascularized. We present a giant vascular eccrine spiradenoma of the thigh in a 40-year-old man, emphasizing clinical, radiological, histopathological, and immunohistochemical findings.

Case Presentation

Clinical Findings

A 40-year-old man presented with an 8-month history of a painful, gradually enlarging nodule on the anterior aspect of his right thigh. The pain was intermittent and aggravated by pressure and activity. On examination, there was a firm, well-circumscribed, slightly mobile subcutaneous nodule measuring approximately 4 cm. The overlying skin was intact, and no regional lymphadenopathy was noted.

Radiological Assessment

MRI demonstrated a well-defined subcutaneous mass with T2 hyperintensity and moderate contrast enhancement, without invasion of adjacent muscle or bone. Imaging suggested a benign adnexal tumour.

Gross Pathology

The excised nodule measured 4.0 × 3.5 × 2.2 cm, was firm, encapsulated, and tan-whitish. The cut surface was homogeneous and pale, without necrosis or haemorrhage.

Figure Legends

Microscopic Findings

At low power (Figure 1, ×10), the tumour was well-circumscribed, lobulated, and separated by thin fibrous septa. Numerous vascular channels were present within the stroma.

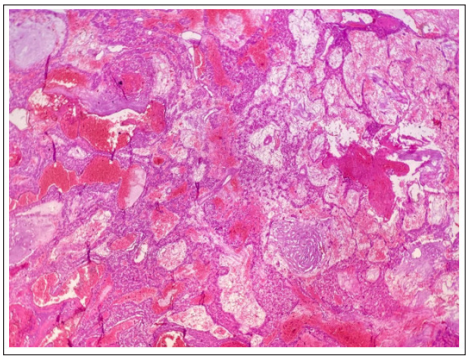

Figure 1: Low-Power H&E (×10): Well-Circumscribed Lobulated Tumour with Prominent Vascular Stroma

At higher magnification (Figure 2, ×25), the lobules displayed the classical biphasic cell population:

- peripheral small basaloid cells with hyperchromatic nuclei,
- central larger pale cells with vesicular nuclei and small nucleoli.

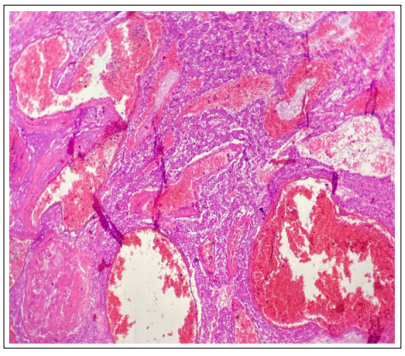

Figure 2: H&E (×25): Biphasic Cell Population with Peripheral Basaloid Cells and Central Pale Cells.

Small lumina and occasional cystic spaces were noted. Mitotic activity was minimal; no necrosis or atypia was observed.

Immunohistochemistry

Pancytokeratin AE1/AE3 demonstrated diffuse, strong positivity in both basaloid and pale cell populations (Figure 3).

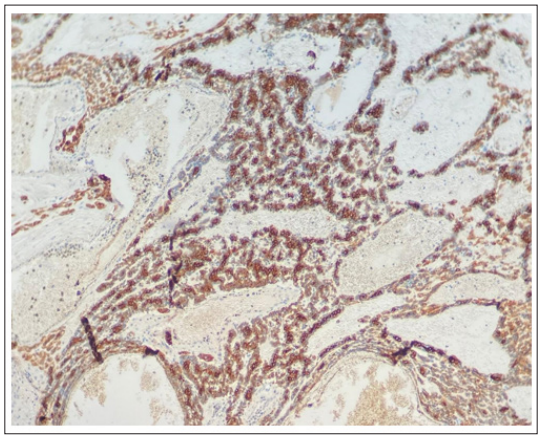

Figure 3: Pancytokeratin AE1/AE3: Diffuse Strong Positivity

SMA Immunostaining Showed strong Cytoplasmic Positivity (Figure 4).

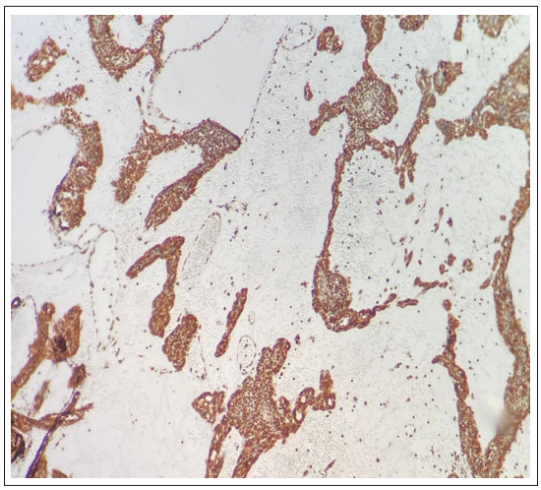

Figure 4: SMA: Strong Cytoplasmic Positivity in Tumour Cells

C34 Immunostaining was Completely Negative (Figure 5).

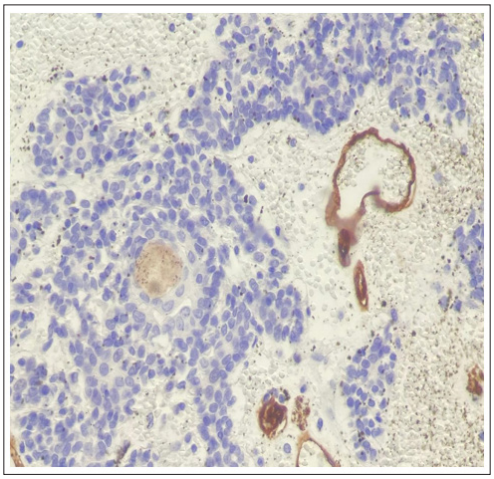

Figure 5: C34: Negative Immunostaining

These findings confirmed the tumour's adnexal sweat-gland origin and ruled out C34-positive basaloid epithelial neoplasms.

Discussion

Giant eccrine spiradenomas are rare, and the vascular variant is exceptional. Painful nodules with prominent vascularity may be confused with hemangiomas, glomus tumours, cylindromas, or other vascular-rich adnexal tumours. Histology demonstrating biphasic cells and immunoprofile (AE1/AE3+, SMA+, C34–) supports the diagnosis [1-6].

Complete surgical excision is curative. Malignant transformation is rare but has been described, usually in long-standing or rapidly enlarging lesions.

Conclusion

We report a rare case of a giant vascular eccrine spiradenoma of the thigh in a 40-year-old man. Diagnosis relied on classic biphasic morphology and immunohistochemistry (AE1/AE3 positivity, SMA positivity, C34 negativity). No recurrence was observed 12 months after excision.

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