Giant vascular eccrine spiradenoma presenting as a thrombosed varix

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ABSTRACT

Eccrine spiradenoma is a benign adnexal tumor of the sweat gland. Giant vascular eccrine spiradenoma is a rare variant of eccrine spiradenoma, characterized by its large size and florid vascularity. Its rarity and clinical appearance give rise to typical misdiagnosis as angiomatous lesions. We present a case of a giant vascular eccrine spiradenoma that was initially diagnosed as a thrombosed varix on the basis of clinical presentation and ultrasound features. This case reintroduces this rare condition and also highlights the differential diagnoses of lower limb skin nodules that may masquerade as a thrombosed varix. (J Vasc Surg Cases and Innovative Techniques 2019;5:583-5.)

Keywords: Eccrine spiradenoma; Thrombosed varix; Varicose vein; Thrombosis

CASE REPORT

A 47-year-old woman was referred to the vascular surgery clinic by her general practitioner with a 5-year history of a right shin lump. It has been enlarging gradually and has been asymptomatic at rest. However, it has become exquisitely tender to light touch in the preceding months. She was otherwise well, with a history of bipolar affective disorder. She did not have a history of varicose veins or any skin lesions.

On examination, there was a tender 3- × 4-cm ovoid mass on the anteromedial aspect of the right leg with surrounding pink discoloration (Fig 1). It was firm to palpation with a rubbery consistency. It was mobile over the anterior surface of the tibia. She did not have any other skin lesions or varicosities. Cardiovascular examination findings were otherwise unremarkable.

Ultrasound examination of the mass showed a multilocular complex cystic-solid lesion in the subcutaneous tissue with internal vascularity (Fig 2). There was surrounding sclerosis of the subcutaneous fat. The overall ultrasound appearance was thought to be suggestive of a thrombosed varix. Ultrasound examination of the remaining lower limb venous system was not performed.

Surgical excision was performed through a longitudinal incision directly over the mass. A 3- × 2-cm rubbery gray-blue mass was identified in the subcutaneous tissue with multiple feeding veins. The mass was dissected from the surrounding tissue, and the feeding veins were ligated. The skin incision was closed over the defect. She was discharged on the same day of operation.

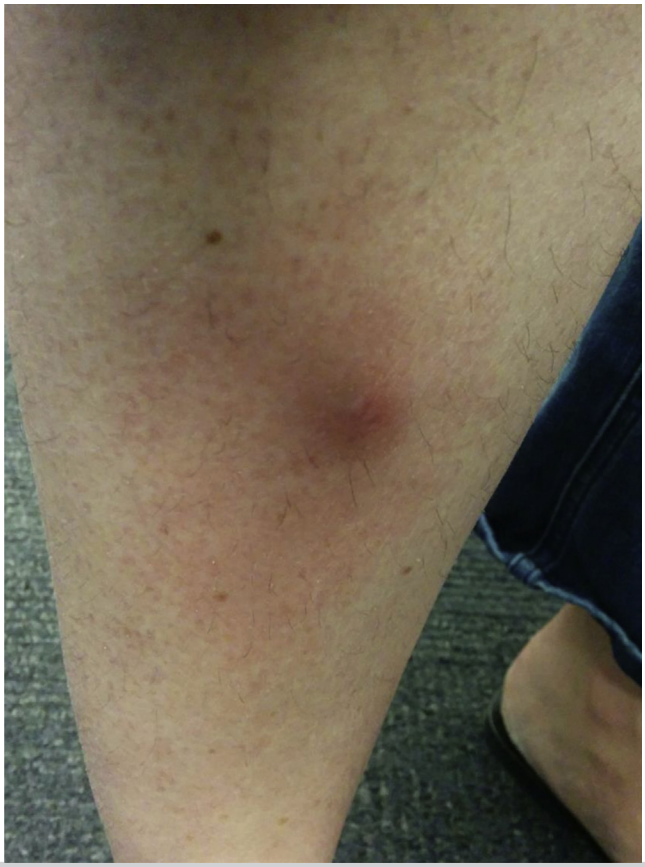

Fig 1. Preoperative photograph showing a nodule on the anteromedial right leg with slight surrounding pink discoloration.

Histologic examination of the mass confirmed features consistent with a vascular eccrine spiradenoma, including multinodular structure with focal cystic change, intracystic altered blood, pericystic cholesterol clefts, and hemosiderin (Fig 3). Lesional

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Author conflict of interest: none.

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The editors and reviewers of this article have no relevant financial relationships to disclose per the Journal policy that requires reviewers to decline review of any manuscript for which they may have a conflict of interest.

2468-4287

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https://doi.org/10.1016/j.jvscit.2019.10.007

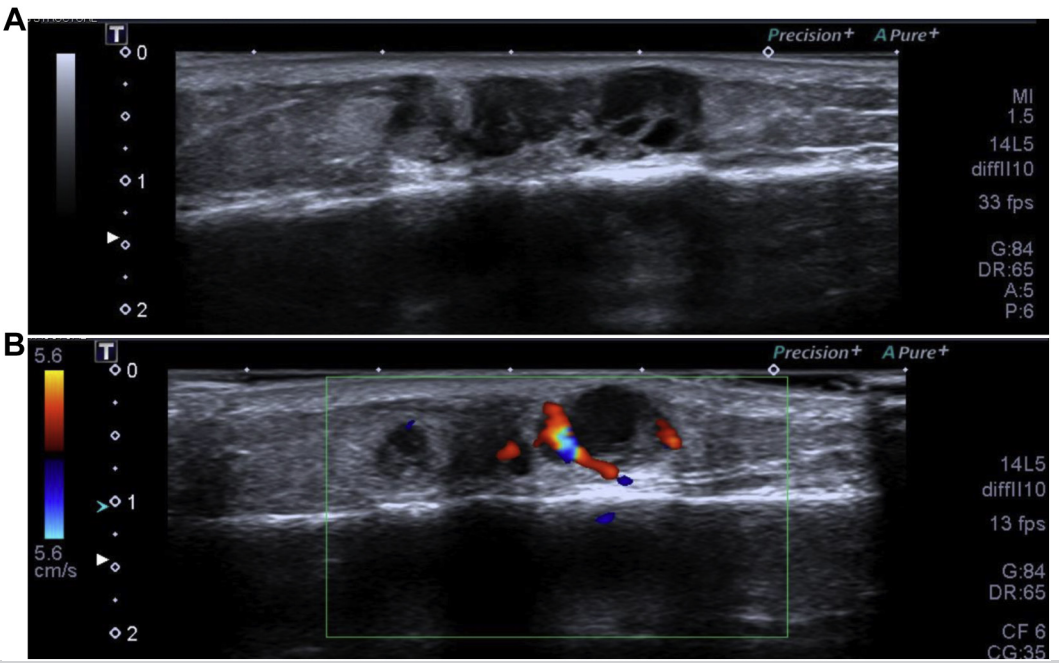

Fig 2. Ultrasound evaluation of the eccrine spiradenoma on the right leg showing a multilobulated hypoechoic lesion in the subcutaneous layer abutting the deep dermis **(A)** with internal vascularity on color Doppler ultrasound **(B)**.

cells are biphasic with larger central cells containing vesicular nuclei and peripheral cells that are smaller and darker.

She was referred to a plastic surgery team and had a wide local excision 2 months after the initial operation. The second excision specimen was complete with clear margins and included a small focus of residual eccrine spiradenoma. Her recovery since then has been unremarkable. Written informed consent has been given by the patient for the publication of the case details and images.

DISCUSSION

Eccrine spiradenoma is an uncommon benign tumor of the sweat gland. Eccrine spiradenoma can be manifested at any age but typically affects young adults in the second to fourth decades of life, with no sexual predominance.[1,2] Eccrine spiradenoma is frequently asymptomatic but can also be manifested with intermittent localized pain or tenderness.[3,4] Its clinical appearance is characteristically described as a solitary well-circumscribed skin nodule with a spongy consistency and a smooth surface with blue or gray discoloration.[1,5] It is usually roughly 1 cm in diameter with a slow increase in size.[3,5] Blue, gray, or pink discoloration tends to occur in the later stages.[4] It typically occurs on the head and neck, less frequently in the trunk, and occasionally in the proximal limbs.[5] Given its variable presentation and lack of change on the skin surface, the clinical diagnosis can be elusive.

Recent reports have emphasized the role of ultrasound in the diagnosis of eccrine spiradenoma.[2,6,7] Jin et al[6] reported a case of an eccrine spiradenoma and compared its ultrasound features with those of other sweat gland tumors in previous literature. Eccrine spiradenoma was thought to be more likely when the lesion is located in the deep dermis to subcutaneous layer and has well-defined hypoechogenicity, hypervascularity, and a lack of cystic portions.

Despite ultrasound investigation, the accurate diagnosis of eccrine spiradenoma remains difficult, and histologic confirmation is mandatory. Differential diagnoses including angioleiomyoma, hemangioma, glomus tumors, and other forms of adnexal tumors such as cylindromas should be considered.[2] Eccrine spiradenoma carries a risk of recurrence, and there have been rare reports of malignant transformation; therefore, complete excision with clear margins is the treatment of choice.

Giant vascular eccrine spiradenoma (GVES) is a rare variant distinguished by its larger size (ie, >2 cm) and florid internal vascularity.[8] Bleeding and internal hemorrhage are common presentations and give rise to the frequent misdiagnosis of GVES as angiomatous lesions.[9] Aydin et al[10] reported a case of GVES presenting as a painful nodule on the anterolateral leg of a middle-aged man. Magnetic resonance imaging (MRI) showed a well-defined subcutaneous mass with hypointensity on T1-weighted images and hyperintensity with internal separations on T2-weighted images. These MRI features may be useful for early diagnosis of GVES in the future.

In this case, the appearance of the lesion and its location along the great saphenous vein distribution were consistent with a thrombosed varix. The ultrasound features including the well-circumscribed hypoechoic

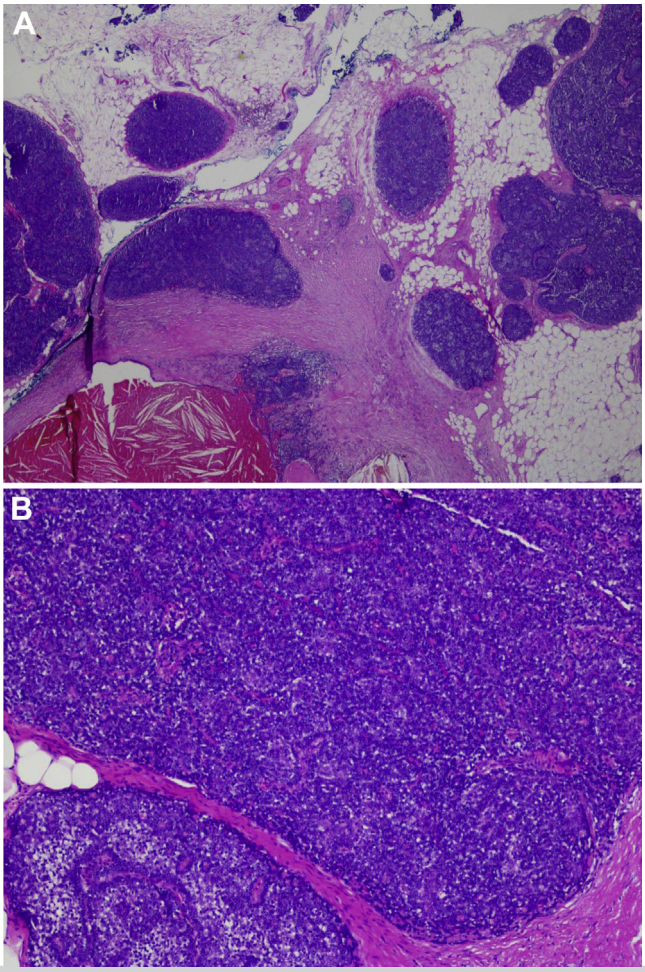

Fig 3. Histopathologic examination showing features of eccrine spiradenoma including multinodular solid-cystic architecture of the lesion **(A)** and a dual cell population composed of peripheral smaller cells with hyperchromatic nuclei and central larger cells with vesicular nuclei and eosinophilic cytoplasm. There are also scattered intra-epithelial lymphocytes **(B)**.

regions and peripheral vascularity seemed to confirm the diagnosis. In retrospect, the presentation as a solitary lump without other varicosities or telangiectasia favored an alternative diagnosis. In addition, the ultrasound findings in this case were also consistent with the described features of eccrine spiradenoma.

A high index of suspicion for an alternative diagnosis may have prompted further preoperative investigation such as MRI. Potentially, a wide local excision of the lesion may have been performed instead and further surgical intervention avoided.

CONCLUSIONS

This case highlights the wide differential for lesions presenting as a superficial venous lesion to the vascular specialist.

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Submitted Aug 5, 2019; accepted Oct 15, 2019.