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CASE REPORT

Giant Scapular Vascular Eccrine Spiroadenomas: A Rare Case Report

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Abstract: Giant vascular eccrine spiradenoma (GVES) is a dermal adnexal neoplasm, representing a malignant variant of eccrine spiradenoma. We report a case of giant scapular vascular eccrine spiroadenomas. This case is characterized by its large size and location in a region with sparse vascular distribution, along with a favorable postoperative prognosis, which merits reporting.

Keywords: giant vascular eccrine spiradenoma, scapular, surgery

Introduction

Eccrine spiradenoma (ES) is a rare cutaneous adnexal neoplasm derived from benign spiradenomas.[1] It typically presents as a single nodule but may rarely manifest as multiple nodules, arranged linearly or in a zosteriform pattern.[2] ES commonly occurs in the head, neck, and trunk regions and may be accompanied by pain and tenderness.[2] Giant vascular eccrine spiradenoma (GVES) is a highly vascular variant of ES, characterized by prominent vascularity and hemorrhagic features, which can lead to misdiagnosis as a vascular lesion or malignancy.[3,4] However, GVES occurring in the scapular region has not been previously reported. Thus, we present a rare case of solitary vascular eccrine spiradenoma in the scapular region, supported by clinical and histological findings.

Case Report

A 54-year-old male patient presented at the hospital with a complaint of "a swelling on the right scapula that has persisted for 10 years". Ten years ago, the patient developed a light-yellow, mung-bean-sized nodule on the right scapula, which was diagnosed as "lipoma" and surgically removed at a local hospital. After resection, a subcutaneous tumor gradually reappeared under the skin at the scar location, but no attention or treatment was given. Over time, the subcutaneous tumor gradually increased in size and occasionally became painful. On October 13, 2022, he sought treatment at our facility. His medical, personal, and family histories were unremarkable. Dermatological examination: A 2.5-cm-diameter, hemispherical, firm, and poorly mobile mass with a fluctuant sensation and marked tenderness. No other significant physical findings were noted (Figure 1a). Other physical examinations showed no abnormalities. Postoperative pathological examination of skin tissue: The tumor is located in the dermis, distributed in a multi-lobed shape, and a large number of blood vessel cavities are dilated and congested. An obvious capsule was visible, and the tumor lobules were composed of two types of cells. The surrounding cells were small, with round and darkly stained nuclei, and the central cells were large, with oval vacuolated nuclei and a small eosinophilic nucleolus, and the cytoplasm was lightly stained. In addition, ductal differentiation was seen (Figure 2).

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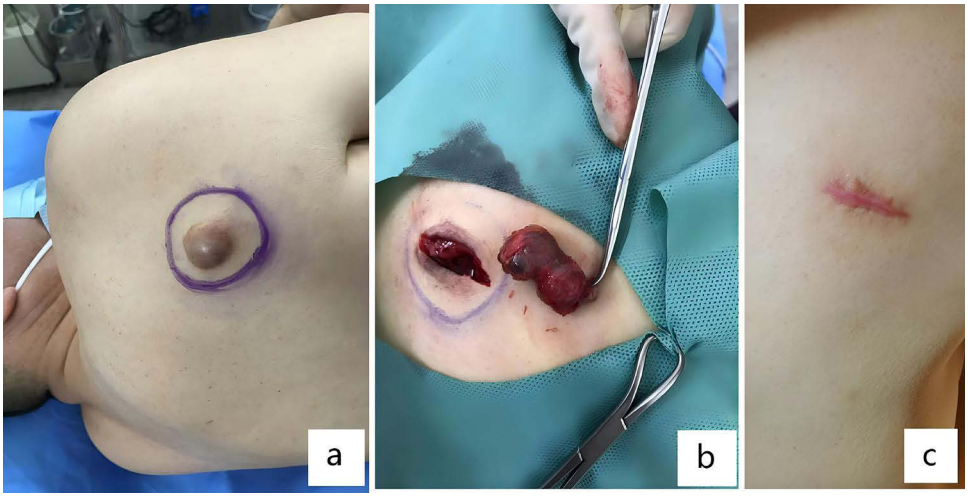

Figure 1 (**a**) Preoperative skin lesions: The lump is 2.5 cm in diameter, hard in texture, poor in mobility, and has a sense of fluctuation; (**b**) Surgical excision was performed, and the lesion was a dark-brown, subcutaneous mass; (**c**) Post-operative skin lesions: One year later, recovery is good.

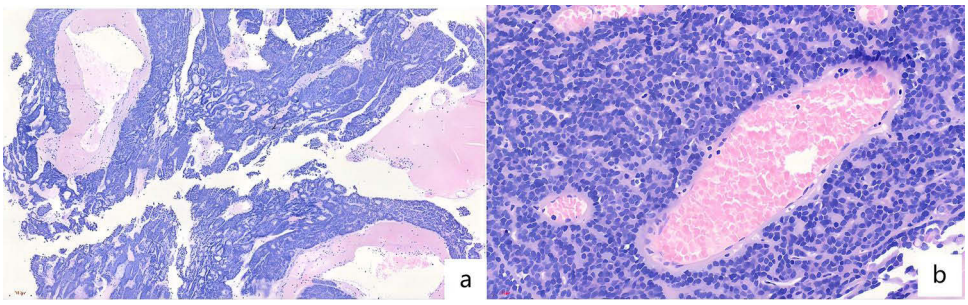

Figure 2 Pathological examination of skin tissue: The tumor is located in the dermis, distributed in a multi-lobed shape, and a large number of blood vessel cavities are dilated and congested. An obvious capsule was visible, and the tumor lobules were composed of two types of cells. The surrounding cells were small, with round and darkly stained nuclei, and the central cells were large, with oval vacuolated nuclei and a small eosinophilic nucleolus, and the cytoplasm was lightly stained. ((**a**)×10, (**b**)×40).

Immunohistochemistry: Right scapula consistent with spiral adenoma. CK7+, CEA+, EMA+, P63+, GCDFP-15-, Ki67 (about 20%+ locally), P53 wild type (Figure 3). Based on these findings, the diagnosis of giant vascular eccrine spiradenoma was confirmed. Surgical excision was performed, and the lesion was a dark-brown, subcutaneous mass (Figure 1b). Pathological examination was performed postoperatively. No recurrence has been seen so far and the patient is still being followed up (Figure 1c). The above content has been informed by the patient and his family, and they agree to publish it.

Discussion

The term "giant eccrine spiradenoma" was first introduced by Lauret et al in 1977.[5] In 1986, Cotton et al first described the giant vascular variant of eccrine spiradenoma.[6] This variant is distinguished by a larger size (diameter >2 cm) and high vascularity.[4] And GVEs was typically composed of three types of cells: epithelial cells (CK+/CK7+), small basal cells (p63+/SMA-), and myoepithelial cells (p63+/SMA+). The differentiation of myoepithelial cells can also be identified by positive staining for S-100.

In this case, the tumor measured 2.5 cm in diameter, and the immunohistochemical profile was largely consistent with the diagnosis of GVEs. Clinically, GVEs is often distinguished from conditions such as lipoma, hemangioma, and desmoid tumors. Accurate diagnosis should integrate pathological sectioning and immunohistochemical techniques for a comprehensive assessment. Notably, the immunohistochemical results included "EMA+" positivity, whereas previous cases have typically shown "SMA-/+" positivity without mentioning "EMA+". Given the unexpected location of the tumor on the scapula, where sweat glands and vasculature are relatively sparse, this may explain the differing immunohistochemical markers.

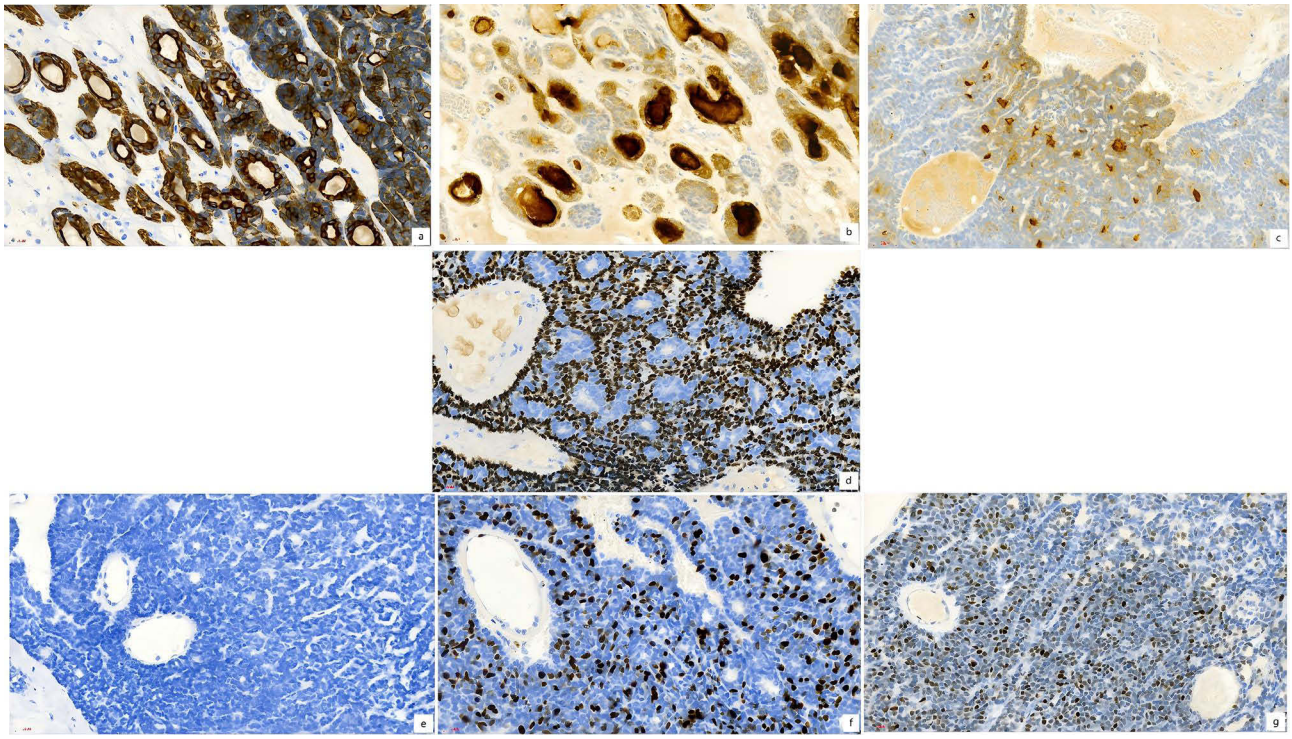

Figure 3 Immunohistochemistry: Right scapula: consistent with spiral adenoma. (**a**) CK7+; (**b**) CEA+; (**c**) EMA+; (**d**) P63+; (**e**) GCDFP-15-, (**f**) Ki67 (about 20%+ locally), (**g**) P53 wild type.

In conclusion, the current prognosis is favorable with no evidence of recurrence, demonstrating that surgical treatment is an effective approach for managing this condition.

Ethic Statement

The patient has granted permission for the images to be published along with the case report, and The Fifth People's Hospital of Hainan Province has given its approval for the case details to be disclosed after obtaining approval from its own Ethics Committee.

Consent Statement

The patient has given written consent for the publication of both images and information.

Acknowledgments

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Disclosure

None of the authors has any conflict of interest to be disclosed.

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