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A giant apocrine hidrocystoma of the trunk

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Abstract

Hidrocystomas are benign cysts that typically present as translucent, bluish dermal nodules on the face and are rarely > 1 cm in size. They are classically categorized as eccrine or apocrine based on histologic features. We present a rare case of a giant apocrine hidrocystoma of the trunk, demonstrating that, although a rare variant, apocrine hidrocystomas can present both off the head and neck, and can be significantly larger in size than previously reported.

Keywords: hidrocystoma, cyst

Introduction

Apocrine hidrocystomas are cystic lesions thought to represent an adenomatous hyperproliferation of apocrine sweat glands, which usually present as small, translucent nodules on the face [1]. They can occur as solitary lesions, or arise in multiples [1]. Treatment is not required as they are benign lesions, but this is often pursued for cosmetic purposes. We present a patient with the rare form of a giant apocrine hidrocystoma of the trunk, demonstrating that the consideration of apocrine hidrocystoma should not be limited to small cystic lesions of the face.

Case Synopsis

A man in his 70's with Parkinson disease, chronic obstructive pulmonary disease, and congestive heart failure presented for evaluation of a right lower-back "mass." The patient's primary caretaker

reported that the mass started out the size of a "wart," which slowly grew in size over a 6-month period prior to evaluation. The mass was asymptomatic. He denied any drainage from the mass. He had no new neurologic symptoms in the lower extremities. The patient's health was otherwise declining, with a weight loss of over 100 pounds since 2011 and several recent hospitalizations for COPD and CHF exacerbations. The patient reported no personal or family history of skin or soft tissue malignancy.

Examination demonstrated a 5.5 x 5.5 cm mobile, non-tender, fluctuant mass on the right lower back. There was variation of overlying epidermal coloration, with a purplish-red hue along the periphery and a hypopigmented appearance centrally (**Figure 1**). A 6mm punch biopsy instrument was used to obtain a tissue specimen and although a cyst wall was not noted grossly, a thin, brownish discharge was expressed easily from the mass at the time of biopsy.



Figure 1. Clinical photograph of the cystic mass. A 5.5 x 5.5 cm mobile, non-tender, fluctuant mass with overlying purplish-red discoloration located on the right lower back.

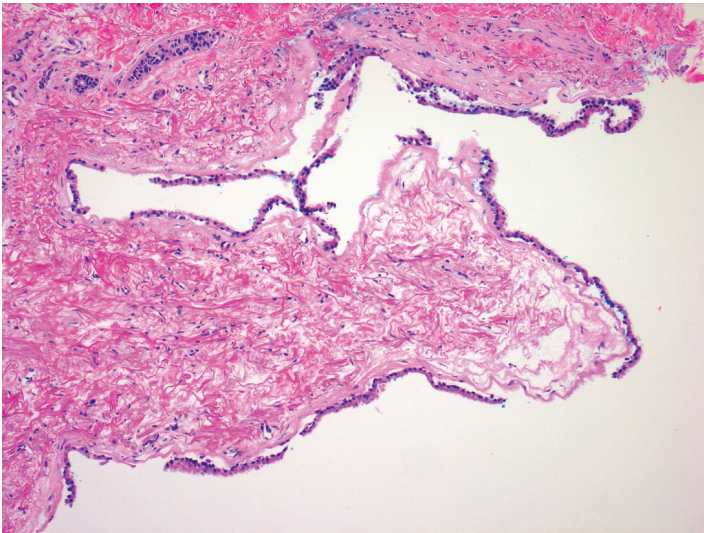


Figure 2. Histopathology of the cystic mass. Fragment of a cystic structure, lined by a single-layered cuboidal epithelium with basally located nuclei and eosinophilic cytoplasm was seen (H&E, 10%).

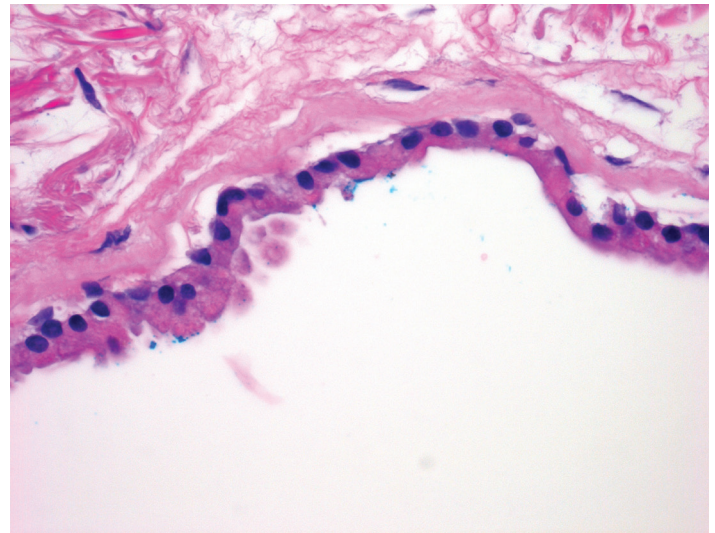


Figure 3. Histopathology of the cystic mass. Decapitation secretion, a classic feature of apocrine hidrocystoma, is noted along the epithelial lining (H&E, 60%).

Hematoxylin-eosin stained sections of the skin punch biopsy to the level of deep reticular dermis demonstrated a cystic structure lined by a predominantly single-layer cuboidal epithelium (**Figure 2**). The lining cells contained small, round, basally located nuclei with eosinophilic cytoplasm. Decapitation secretion characteristic of apocrine cells was present (**Figure 3**). These findings were consistent with an apocrine hidrocystoma.

Complete surgical excision was subsequently offered to the patient, but given the lesion was benign and otherwise asymptomatic, he declined additional management.

Case Discussion

Hidrocystomas are uncommon cystic lesions. They typically present as firm, dermal cysts with a translucent, bluish appearance and occur most commonly on the face. They are classically categorized as either apocrine or eccrine based on histologic features and can occur as solitary lesions or arise in multiples [1]. They are typically only 1 to 3 mm in size [2].

Compared to eccrine hidrocystomas, apocrine hidrocystomas more commonly present as solitary lesions and likely represent an adenomatous proliferation of apocrine sweat gland coils [1]. Histologically, apocrine hidrocystomas are dermal cysts with a single-layered cuboidal epithelium lining

that classically demonstrates decapitation secretion. Although benign, treatment is often pursued for cosmesis and typically involves simple excision, electrodesiccation, or CO₂ laser therapy [1].

Given hidrocystomas are typically small cysts located on the face, this entity is often not considered when confronted with larger cystic lesions in areas other than the head and neck. Indeed, there have been only a few reports of apocrine hidrocystomas >10 mm in size and even fewer reports of hidrocystomas off the head and neck. Demellawy et al. described a 2.8 x 2.0 cm apocrine hidrocystoma presenting as a scalp hematoma [3]. There are even fewer reports of giant eccrine hidrocystomas, most notably a report of an 8 x 4 cm eccrine hidrocystoma of the scalp [4].

To our knowledge, the only other reported apocrine hidrocystoma >3 cm in size was by Holder et al. in 1971, who described a 7.0 x 5.0 cm apocrine hidrocystoma on the trunk [5]. Therefore, our report represents only the second case of a giant apocrine hidrocystoma on the trunk described. Given it was such a rare variant, our original differential diagnosis for our patient did not include this entity. Diagnoses considered were more commonly seen cystic structures of the trunk, including epidermoid inclusion cyst, trichilemmal cyst, steatocystoma, or other fluid-filled structures such as a hematoma. The patient did not have any constitutional symptoms to suggest an abscess. Lastly, given the patient's recent, significant weight

loss, we considered cutaneous malignancies. Our case demonstrates the importance of maintaining a broad differential diagnosis when confronted with a cystic lesion on the trunk.

Conclusion

We herein report a rare case of a giant apocrine hidrocystoma of the trunk. Although an unusual presentation for this entity, this case suggests broadening our concepts of both the size and anatomic locations in which apocrine hidrocystomas are considered.

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