SKIN

BRIEF ARTICLE

Trichoadenoma on the Dorsal Forearm

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ABSTRACT

Trichoadenomas are benign adnexal tumors that originate from the pilosebaceous unit. They are typically observed on the head and buttock region. Here, we present a case of a trichoademona found on the dorsal forearm, which emphasizes the consideration of this diagnosis on the differential for cystic or nodular lesions, even when present on the distal extremities.

INTRODUCTION

Trichoadenomas are rare benign adnexal tumors originating from the pilosebaceous unit, typically observed in the head and buttock region.[1] Thus, their occurrence on the distal extremities is exceptionally rare. Here, we present a unique case of a trichoadenoma found on the dorsal forearm, highlighting the importance of recognizing uncommon presentations of cutaneous neoplasms and the need for thorough evaluation and histopathological examination for accurate diagnosis. By elucidating the clinical and histopathological features of this distinctive case, we aim to contribute to the expanding knowledge base surrounding trichoadenomas and underscore the importance of multidisciplinary collaboration in the diagnosis and management of cutaneous lesions.

CASE PRESENTATION

The patient is a 59-year-old male who presented to his primary care provider with a chief complaint of a cystic lesion on the dorsal left forearm that had been present for many years and had recently become irritated and developed a scab. Physical exam revealed a 1.1 x 1.1cm, raised cystic lesion with overlying scabbing on the medial aspect of the dorsal left forearm (**Figures 1 and 2**). There was no surrounding erythema or drainage. The differential diagnosis included pilomatricoma, basal cell carcinoma, and invasive squamous cell carcinoma. The patient was referred to dermatology and, due to a high clinical suspicion for a squamous cell carcinoma (SCC) based on the patient's history and the clinical appearance of the lesion, the lesion was excised with 0.5cm margins. Pathology revealed a benign trichoademona (**Figure 3**). The site healed well without complications.

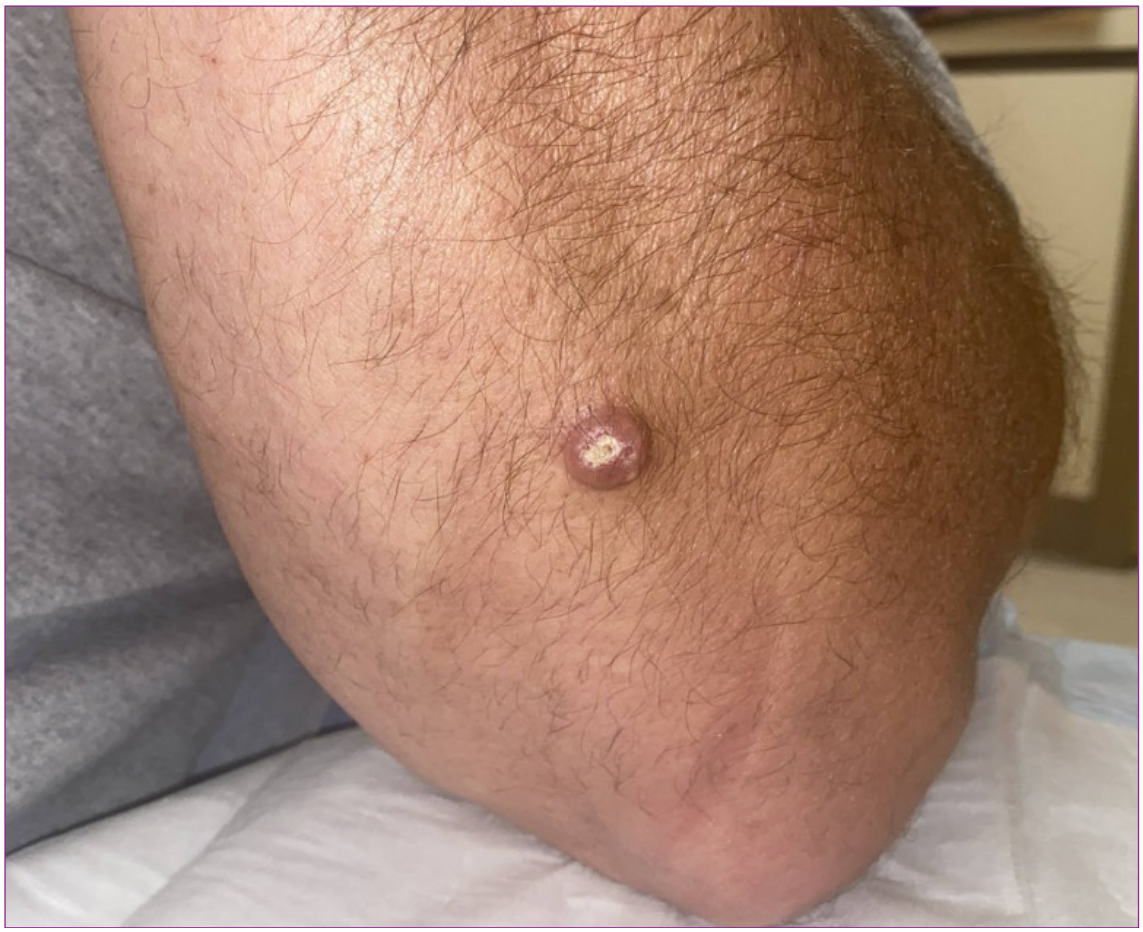

Figure 1. 1.1cm x 1.1cm nodular, cystic lesion with overlying scabbing without erythema or drainage on the medial aspect of the dorsal left forearm with accompanying anatomic landmarks visualized.

DISCUSSION

Trichoadenomas are rare benign adnexal tumors derived from the pilosebaceous unit, characterized by follicular differentiation. As they predominantly occur on the face and buttock regions, their presentation on the dorsal forearm is far less common.[1] Trichoadenomas typically manifest as solitary, well-circumscribed papules or nodules, often with a relatively smooth surface, as was seen in the described case, or a verrucous surface.[2,3] Histologically, they are characterized by anastomosing cords and strands of epithelial cells and keratinized cysts surrounded by fibrous stroma.[4]

The unique presentation of a trichoadenoma on the dorsal forearm in this case underscores the importance of considering uncommon diagnoses on the list of differentials in the evaluation of cutaneous lesions. While trichoadenomas are typically encountered on the head and neck region,[1] their occurrence at an atypical site highlights the potential for variability in clinical presentation and emphasizes the need for thorough examination and histopathological evaluation for accurate diagnosis. Given the rarity of these tumors especially on sites such as the dorsal forearm compared to other lesions such as SCC, trichoadenoma was not on our differential for the patient discussed here. Because trichoadenomas can mimic

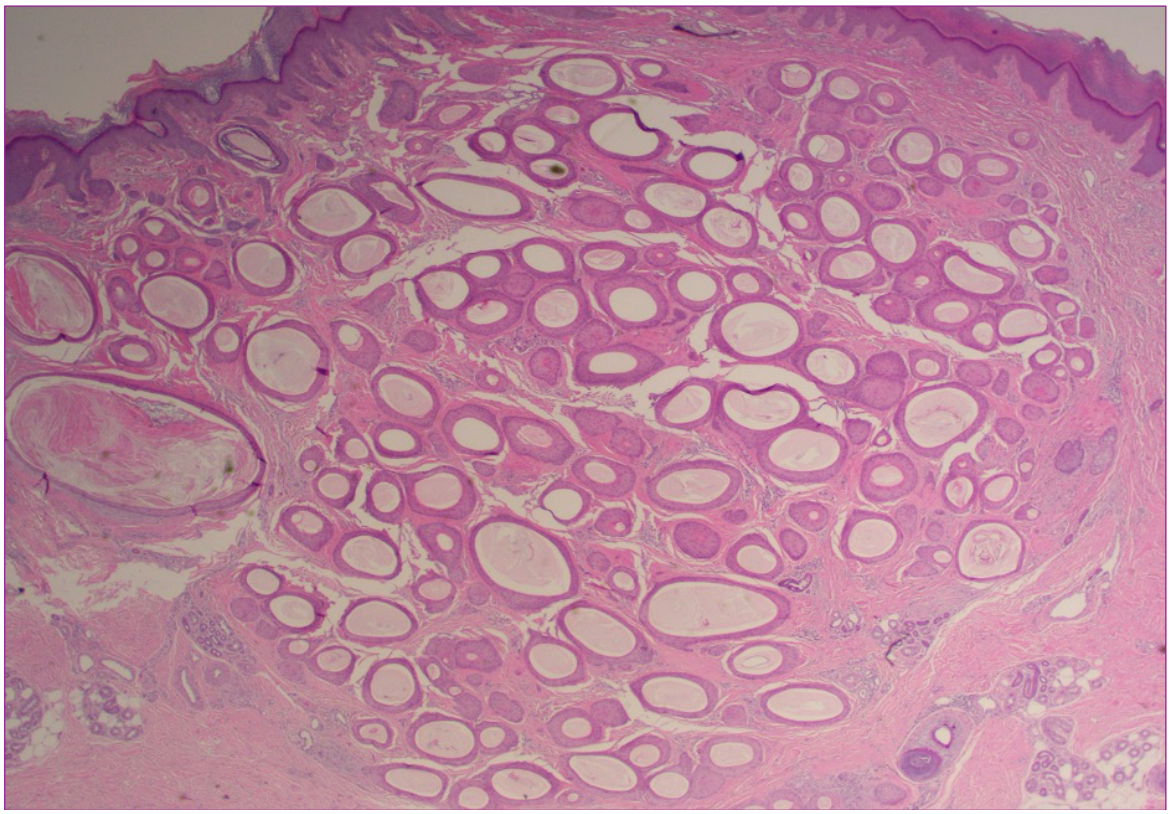

Figure 2. Intradermal proliferation comprised of numerous similarly sized keratinizing cysts. The cysts are lined by stratified squamous epithelium and set within a fibrotic strome (H&E; 2x).

other malignant lesions, complete excision is often performed and only histopathology can confirm the lesion is, in fact, a trichoadenoma.[5] However, trichoadenomas are benign tumors, so they do not require any follow-up or definitive removal for malignancy concerns. They are, however, often excised due to initial concern for malignancy, patient preference or cosmetic reasons, or shave excision risking residual tissue and potential recurrence.[5–7] Taken together, this underscores the importance of histological confirmation to guide appropriate management and patient counseling.

Clinicians can glean several key insights from this case. First, the recognition of trichoadenomas as a potential differential diagnosis for cutaneous lesions, even in uncommon locations, is crucial for accurate diagnosis and appropriate management. Documenting such cases is important so clinicians can see examples of trichoadenomas in atypical locations and broaden their differential diagnoses for cutaneous lesions accordingly, enhancing diagnostic accuracy and patient care. Second, histopathological examination remains the gold standard for definitive diagnosis of trichoadenomas, which demonstrates the importance of collaboration between clinicians and pathologists to optimize patient care.[2] Finally, while trichoadenomas are generally benign and do not require aggressive intervention, their variable clinical presentation highlights the importance of individualized treatment planning based on patient factors and lesion characteristics. As we did not have any pathology on the lesion from a prior biopsy, we opted to treat based on our high clinical suspecicion for a malignant lesion. If the

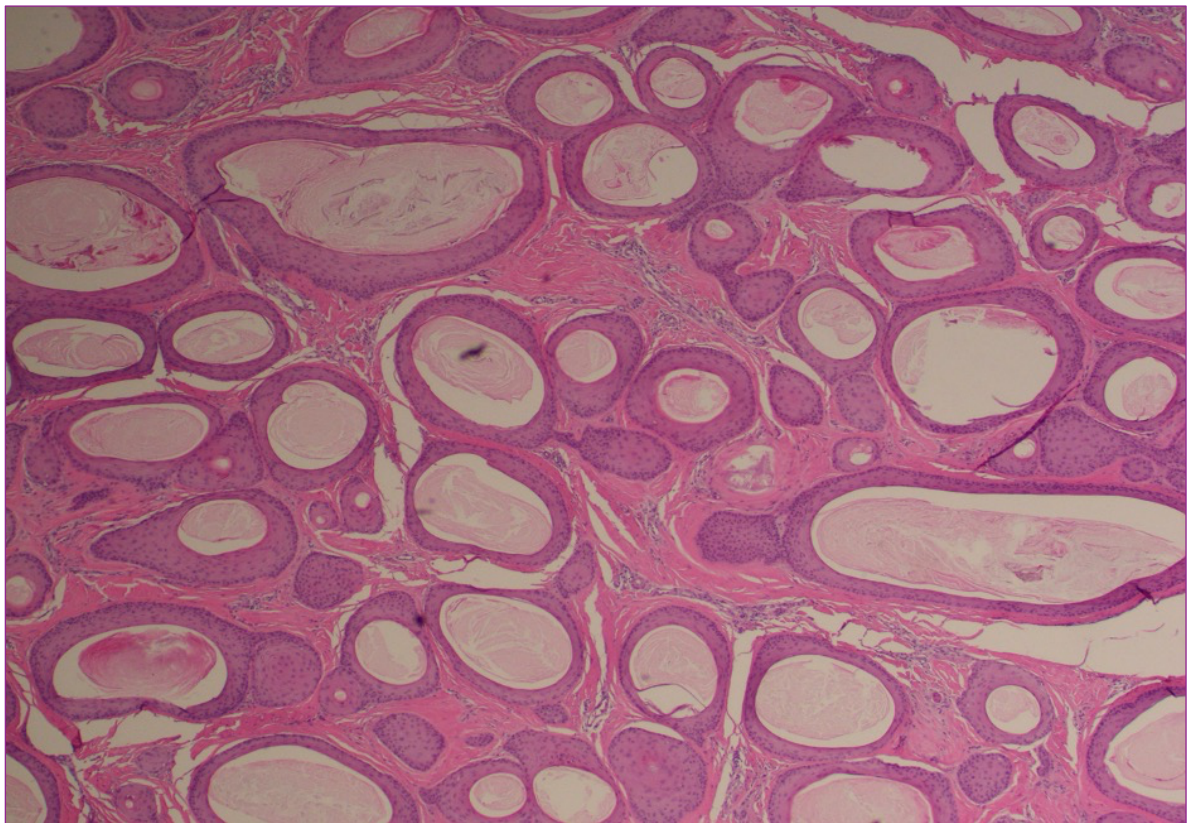

Figure 3. Tightly packed squamous-lined cystic spaces. The squamous epithelium shows a granular layer and centrally, epidermal-type keratin material is seen. The intervening stroma shows fibrosis and mild perivascular lymphocytic inflammation (H&E; 4x).

lesion had been previously biopsied and diagnosed as a trichoadenoma, we would have discussed management options with the patient and likely would have excised with even smaller margins or opted to monitor the lesion based on the patient's preference. By elucidating the clinical and histopathological features of this unique case, we contribute to the expanding knowledge base surrounding trichoadenomas and reinforce the importance of vigilant observation and comprehensive evaluation in the diagnosis and management of cutaneous neoplasms.

CONCLUSION

The presentation of a trichoadenoma on the dorsal forearm serves as an example of the variability in clinical manifestations of cutaneous neoplasms. Through thorough examination and histopathological analysis, we confirmed the diagnosis of trichoadenoma, which was not on our original differential, highlighting the importance of considering rare differential diagnoses in the evaluation of atypical cutaneous lesions. Thus, this case serves as an excellent example of how interdisciplinary collaboration between specialists helps to ensure accurate diagnosis and appropriate management, either excision or clinical monitoring, of uncommon dermatological findings. By sharing this case, we contribute to the collective understanding of trichoadenomas and reaffirm the significance of comprehensive evaluation and management in the care of patients with cutaneous neoplasms.

Conflict of Interest Disclosures: None

Funding: None

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