CASE REPORT

Cutaneous Lymphadenoma: A Rare Differential Diagnosis of Basal Cell Carcinoma. Case Report

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ABSTRACT

Cutaneous lymphadenoma is an uncommon benign tumor originating from hair follicles, typically presenting as a nodular lesion in sun-exposed areas. This can lead to confusion with other more aggressive conditions, such as nodular basal cell carcinoma. Its differential diagnosis is challenging due to its distinct histological features, which include a pattern of epithelial cells resembling ameloblastoma within a dense stroma. Nevertheless, this tumor has a benign behavior and carries an excellent prognosis. Early diagnosis and complete surgical excision are key for proper management, with a low recurrence rate.

We present the case of a 64-year-old female patient with an asymptomatic nasal nodule, which was biopsied and diagnosed as adamantinoid trichoblastoma, followed by complete excision. It is essential for physicians to be familiar with this entity to avoid misdiagnosis and unnecessary patient anxiety.

INTRODUCTION

Cutaneous lymphadenoma, also known as adamantinoid trichoblastoma, is an extremely rare neoplasm considered to have a lymphepithelial origin with benign behavior. However, there are reported cases of recurrence and metastasis to regional lymph nodes, making its proper recognition and management essential.[1-3]

A rare case is described, with approximately 100 reports worldwide, which lacks established clinical features that allow differentiation from other entities and whose diagnosis is achieved through histopathological findings. Although its recurrence rate is low, monitoring and follow-up are important, as it can initially be mistaken for basal cell carcinoma, leading to a much more aggressive resection.

CASE REPORT

A 64-year-old female patient with no significant medical history presented with a nodular lesion on the left nasal ala, present for 7 years and progressively increasing in size, without causing any symptoms (Figure 1). Dermatoscopy revealed a nodular lesion with a central whitish area lacking structure, surrounded by an erythematous zone with multiple arborizing vessels and telangiectasias (Figure 2).

Figure 1. Well-defined nodule approximately 7 mm in size, with regular borders and a shiny surface with telangiectasias.

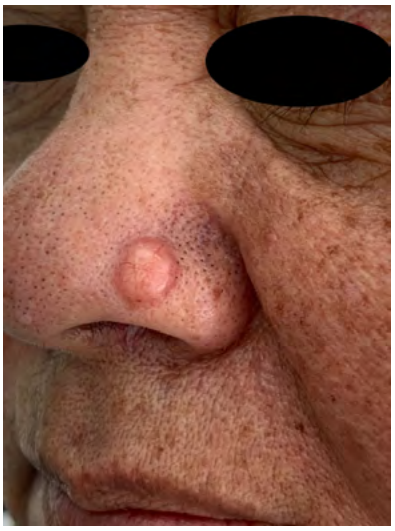


Figure 2. Dermatoscopy of the lesion showing a central whitish area with a periphery of arborizing vessels and telangiectasias.

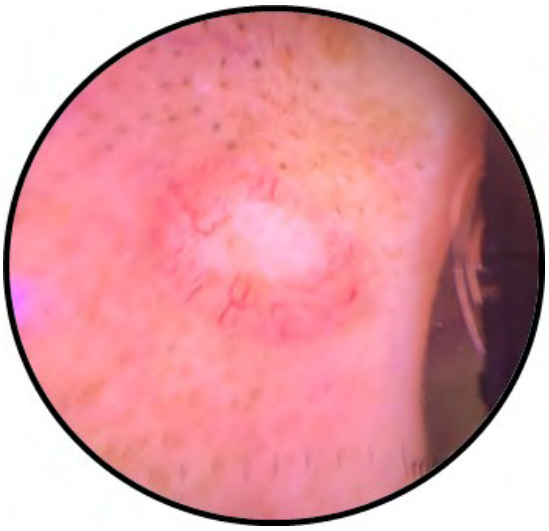
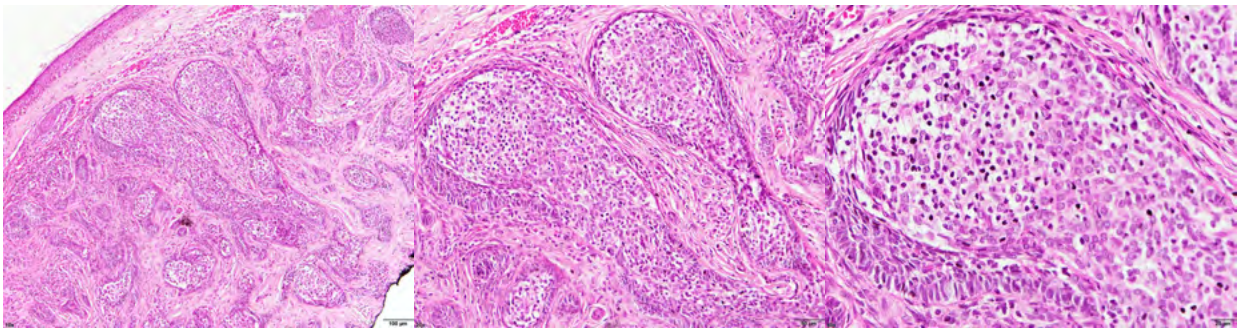


Figure 3. A. Image at 10X magnification, B. Image at 20X magnification, and C. Image at 40X magnification, showing a well-circumscribed tumor composed of sheets of basaloid cells interspersed with lymphocytes and surrounded by fibrocystic stroma with a moderate mixed leukocyte infiltrate.



Excision of the lesion was performed, and histopathological examination reported a tumor consistent with adamantinoid trichoblastoma with involved lesion margins (Figure 3. A, B, and C).

Based on the pathology results, margin enlargement of the lesion was performed, with negative margins reported in a second biopsy. After one-year post-procedure, no recurrence of the lesion was identified.

DISCUSSION

Adamantinoid trichoblastoma, also known as cutaneous lymphadenoma, is an uncommon benign neoplasm originated from the follicular germinative cells of the skin.[4] This tumor is characterized by differentiation toward follicular structures and exhibits distinctive histology that can pose diagnostic challenges.

Fewer than 100 cases of cutaneous lymphadenoma have been reported since its first description by Santa Cruz and Barr in 1987.[5] No predilection for gender, ethnicity, or age group has been found.[6] Two cases of congenital lymphadenoma have been reported.[7] Lesions generally present on the face and head, with few cases reported in other body areas, suggesting that sun exposure may be a triggering factor for this neoplasm.[1]

The evolution and growth of the tumor vary according to reports, ranging from months to several years, and it generally does not cause accompanying symptoms.[2] It presents as a skin-colored or pink, dome-shaped nodule, less than 1 centimeter in size, with multiple telangiectasias crossing its surface.[1]

Histopathology reveals a triphasic tumor with epithelial islands, lymphocytic infiltrates, and surrounding

desmoplastic stroma. The tumor is well-circumscribed, located in the dermis, with lobules composed of basaloid cells showing peripheral palisading and a central zone containing lymphocytes and histiocytes, without mitosis or atypia. These lobules are surrounded by dense, fibrotic stroma.[2,8] The immunophenotype resembles that of trichoblastoma or trichoepithelioma but shows a prominent inflammatory infiltrate.[5]

Although immunohistochemistry can be useful to confirm the diagnosis,[9] the stroma of lymphadenoma is reactive to CD34,[2] while the basaloid cells stain positive for cytokeratin AE1/AE3;[10] Cytokeratin 20 (CK20) and CK17 are used to distinguish this entity from basal cell carcinoma. Hematoxylin-eosin staining features are adequate for diagnosis.[3]

It is necessary to differentiate it from other pathologies that present as slow-growing nodules, such as basal cell carcinoma, which histologically shows numerous mitotic figures and apoptosis, with adjacent clefting stroma—features that distinguish it from cutaneous lymphadenoma.[2] Other diagnoses to consider include syringoma, dermal thymus, and skin carcinoma resembling lymphoepithelioma.[1,11]

The histogenesis of the neoplasm is unknown due to its extremely low incidence; it is currently classified as an adamantinoid variant of trichoblastoma.[12]

The first-line treatment consists of complete excision of the lesion. Only one case of recurrence after shave excision[13] and one case of transformation into carcinoma have been reported.[14] Removal of the lesion by cauterization, laser, or shaving should be avoided, but wide-margin excision is not necessary.[1,3] Mohs surgery may be beneficial in cases located in anatomically sensitive areas where tissue preservation is critical.[15]

CONCLUSION

In conclusion, adamantinoid trichoblastoma or cutaneous lymphadenoma is a rare benign skin tumor originated from hair follicle cells, with histological features similar to other pathologies such as basal cell carcinoma. Although its occurrence is uncommon, this tumor generally presents as a well-defined, slow-growing dermal mass, commonly on the face and neck.

Despite being a benign tumor, accurate diagnosis through biopsy and histopathological study is essential to differentiate it from other dermal lesions. The treatment of choice is complete surgical excision, which in most cases ensures an excellent prognosis with a low recurrence rate.

INFORMED CONSENT

The patient included in this study has signed informed consent, approving the use of her images and clinical data exclusively for research and scientific publication purposes. It is guaranteed that no personal data have been provided, nor have photographs that allow her identification been used.

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