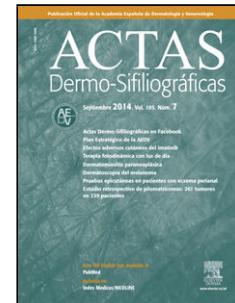


Journal Pre-proof

Adnexal tumours: the unconditional help of dermoscopy

LM Nieto-Benito M Garrido-Ruiz M Huerta-Brogeras A
Tomás-Velázquez P Redondo-Ballón



PII: S0001-7310(25)00852-X

DOI: <https://doi.org/doi:10.1016/j.ad.2025.104576>

Reference: AD 104576

To appear in: *Actas dermosifiliograficas*

Received Date: 4 April 2024

Accepted Date: 21 July 2024

Please cite this article as: Nieto-Benito L, Garrido-Ruiz M, Huerta-Brogeras M, Tomás-Velázquez A, Redondo-Ballón P, Adnexal tumours: the unconditional help of dermoscopy, *Actas dermosifiliograficas* (2025), doi: <https://doi.org/10.1016/j.ad.2025.104576>

This is a PDF of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability. This version will undergo additional copyediting, typesetting and review before it is published in its final form. As such, this version is no longer the Accepted Manuscript, but it is not yet the definitive Version of Record; we are providing this early version to give early visibility of the article. Please note that Elsevier's sharing policy for the Published Journal Article applies to this version, see: <https://www.elsevier.com/about/policies-and-standards/sharing#4-published-journal-article>. Please also note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2025 Published by Elsevier España, S.L.U. on behalf of AEDV.

Sección. Challenging cases.

Adnexal tumours: the unconditional help of dermoscopy.

Authors

Nieto-Benito LM¹, Garrido-Ruiz M², Huerta-Brogeras M¹, Tomás-Velázquez A¹, and Redondo-Ballón P¹.

¹Departamento de Dermatología, Clínica Universidad de Navarra, Madrid, Spain

² Departamento de Dermatopatología, Clínica Universidad de Navarra, Madrid, Spain

Corresponding author

Lula María Nieto Benito

E-mail address: lula.m.nieto@gmail.com

Case reports

Case report #1: A skin-colored papule located on the left scapular region, previously unnoticed and of uncertain duration, in a 45-year-old woman (Figure 1A). Dermoscopic examination revealed fine, well-focused telangiectasias traversing the lesion on a pink-whitish background (Figure 1B). The lesion was surrounded by a pigment network, consistent with its location in an area of intense actinic damage. With an initial suspicion of basal cell carcinoma, a skin biopsy was performed, which confirmed the diagnosis (Figure 1C).

Case report #2: This is the case of a several-year history of an erythematous papule on the left nasal ala in a 60-year-old woman, with rapid growth in recent months (Figure 2A). Dermoscopy revealed the presence of short, fine vessels and focused telangiectasias, along with rosettes and white-yellow globules corresponding to milia-like cysts (Figure 2B). Histopathologic findings are shown in Figure 2C.

Case report #3: With clinical suspicion of a 2nd basal cell carcinoma, excision was performed on a recently appearing lesion on the left temple, associated with the growth of another immediately inferior lesion with occasional bleeding consistent with basal cell carcinoma (Figure 3A). Dermoscopy demonstrated blue-gray dots and globules, focused telangiectasias and fine branching vessels, shiny white structures, and a central erosion over a blue-gray background (Figure 3B). Histopathologic examination established the definitive diagnosis (Figure 3C).

What is the diagnosis?

Diagnosis:

Case report #1: Desmoplastic trichoepithelioma.

Case report #2: Trichoepithelioma.

Case report #3: Trichoblastoma.

Comments

Cutaneous adnexal tumors include a diverse group of neoplasms arising from follicular or glandular skin structures.¹ This group includes hamartomas as well as benign and malignant neoplasms, and they often pose a diagnostic challenge when differentiating them—clinically and histologically—from basal cell carcinoma (BCC), the most common malignant skin tumor.^{1–3}

Trichoblastomas (TBs) are benign neoplasms with follicular differentiation arising from follicular germinative cells.² There is controversy as to whether trichoepitheliomas (TEs)—including the desmoplastic variant (DTE)—represent histopathologic variants of TB or whether they constitute independent entities.^{1,3}

As with other adnexal tumors, although the definitive diagnosis is histopathologic, several dermoscopic criteria have been proposed to aid in distinguishing TB/TE from BCC.^{3–6}

TB usually presents as a solitary lesion and may occur anywhere except on non-hair-bearing skin, with a predilection for the face and scalp.^{1,2} Occasionally, TB may present as multiple lesions, be associated with other syndromes,³ or arise within a nevus sebaceus, where it is the most frequent associated neoplasm.⁴

TE shares similar clinical and epidemiologic characteristics and is notable for its desmoplastic histopathologic variant.^{2,4} Histologically, TB and TE are similar; however, some authors consider TE to represent the superficial variant of TB due to the location of its proliferative component.¹

They differ from BCC in the presence of nests or islands of basaloid cells forming a well-circumscribed, symmetric tumor with vertical growth, surrounded by a loose stroma that separates them from the adjacent dermis. Retraction occurs between the stroma and surrounding dermis—unlike BCC, in which retraction is seen between the tumor and stroma and peripheral palisading is typically present.^{1–3,6}

Dermoscopic criteria have been defined to help distinguish these tumors from BCC and from one another (TB/TE/DTE).^{3–7}

In TE, various vascular patterns may be seen; the most common consists of small unfocused vessels, although fine and short arborizing vessels may also be present, resembling BCC.^{3,6,7} When the lesion is nonpigmented, these vessels appear over a white-pink background which, in the case of DTE, may show a whiter, “ivory-like” marbled appearance (Figure 1B), sometimes with central umbilication. White-yellow globules representing milia-like cysts (Figure 2B) and even rosettes are a common finding.^{6,7}

TB, however, more commonly shows vessels similar to those of BCC, although punctate and glomerular vessels have been described in the adamantinoid variant.^{1,2} A characteristic feature of TB is its pigmented variant: a solitary blue-gray background (described as a “large blue-gray ovoid nest”), often accompanied by blue-gray dots and globules (Figure 3B).⁶

This helps differentiate it from pigmented BCC, in which ovoid nests are generally multiple and smaller, contributing to clinical pigmentation but not typically forming a uniform pigmented background on dermoscopy.^{6,7}

The definition of these dermoscopic structures has been guided by histopathologic correlation.⁸ Pigmented structures correspond to basaloid cell nests containing pigment; shiny white structures and “ivory-like” backgrounds correspond to dense, altered collagen in the abundant stroma of these tumors; and white globules/pseudocysts correspond to cystic structures such as milia-like cysts.

Therefore, although histopathology remains the diagnostic gold standard, dermoscopy significantly improves the ability to distinguish trichoblastic tumors from BCC and supports characterization of the different subtypes (TB/TE/DTE).^{1,4,6,7}

REFERENCES

1. Danialan R, Mutyambizi K, Aung P, Prieto VG, Ivan D. Challenges in the diagnosis of cutaneous adnexal tumours. *J Clin Pathol* 2015;68:992-1002. doi: 10.1136/jclinpath-2015-203228.
2. Sławińska M, Płaszczyńska A, Lakomy J, Pastuszek K, Biernat W, Sikorska M, Nowicki RJ, Sobjanek M. Significance of Dermoscopy in Association with Clinical Features in Differentiation of Basal Cell Carcinoma and Benign Trichoblastic Tumours. *Cancers (Basel)* 2022;14:3964. doi: 10.3390/cancers14163964.
3. Navarrete-Dechent C, Bajaj S, Marghoob AA, González S, Muñoz D. Multiple familial trichoepithelioma: confirmation via dermoscopy. *Dermatol Pract Concept* 2016;6:51-4. doi: 10.5826/dpc.0603a10.
4. Zaballos P, Gómez-Martín I, Martín JM, Bañuls J. Dermoscopy of Adnexal Tumors. *Dermatol Clin*. 2018;36:397-412. doi: 10.1016/j.det.2018.05.007.
5. Zaballos P, Serrano P, Flores G, Bañuls J, Thomas L, Llambrich A, Castro E, Lallas A, Argenziano G, Zalaudek I, del Pozo LJ, Landi C, Malvehy J. Dermoscopy of tumours arising in naevus sebaceous: a morphological study of 58 cases. *JEADV* 2015;29:2231-7. doi: 10.1111/jdv.13226.
6. Lai M, Muscianese M, Piana S, Chester J, Borsari S, Paolino G, Pellacani G, Longo C, Pampena R. Dermoscopy of cutaneous adnexal tumours: a systematic review of the literature. *JEADV* 2022;36:1524-40. doi: 10.1111/jdv.18210.
7. Longo C, Lippolis N, Lai M, Spadafora M, Kaleci S, Condorelli AG, Lombardi M, Pampena R, Argenziano G, Nazzaro G, Scalvenzi M, Akay BN, Broganelli P,

Fagnoli MC, Paoli J, Yélamos O, Pellacani G, Borsari S, Lallas A. Dermoscopic features of trichoepithelioma: A multicentre observational case-control study conducted by the International Dermoscopy Society. *JEADV* 2023;37:e1253-5. doi: 10.1111/jdv.19262.

8. Huet P, Barnéon G, Cribier B. Trichoblastome: corrélation dermatopathologie-dermatoscopie. *Ann Dermatol Venereol* 2017;144:462-5.

Journal Pre-proof

Fig.1

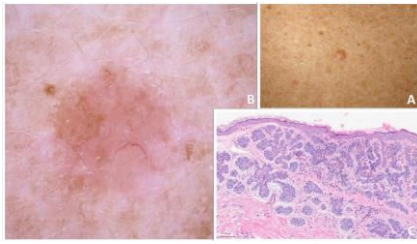


Fig.2

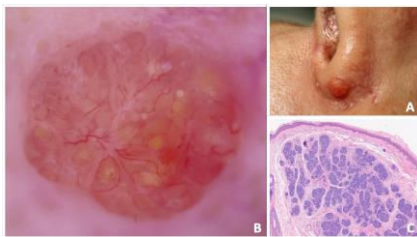


Fig.3

