

# *Dermoscopy of eccrine acrospiroma masquerading as nodular malignant melanoma*

A. Gatti, N. di Meo, and G. Trevisan

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## S U M M A R Y

Eccrine acrospiroma, better known as eccrine poroma, is a benign adnexal neoplasm of the skin. Its clinical aspect can masquerade as some other nodular and cystic lesions. The current dermoscopy literature offers very few case studies. Moreover, these very few examples present a totally different appearance pattern compared to the one we examined. Its homogeneous blue pattern suggested the better-known nodular malignant melanoma; in fact, this dermoscopic appearance was due to the Tyndall effect.

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## *Introduction*

Eccrine acrospiroma is a benign sweat gland neoplasm that occurs as a single mass in the skin with a nodular or cystic structure. The color varies from that of the surrounding skin to red or reddish blue, and the covering skin may be smooth or thickened and verrucous. Clinically, the tumors lack diagnostic specificity, but they should be included in the differential diagnosis of nodular and cystic lesions of the skin. In contrast, the cells and structure are histologically distinctive (1). Dermoscopy is an effective and absolutely necessary non-invasive diagnostic technique for the study of pigmented lesions. Its use has substantially contributed to improving the early diagnosis of skin melanoma.

We report a case of eccrine acrospiroma located on the left leg, which caused an equivocal pigmented skin lesion both clinically and dermoscopically.

## *Case report*

A 79-year-old man in fair general condition was physically examined for an asymptomatic  $0.7 \times 0.7$  cm single nodule on his left leg (Fig. 1). It had been present for approximately 6 months and had rapidly increased in size during the same period. This nodule was dark bluish, well circumscribed, firm, non-fluctuant, and mildly tender (Fig. 2). The lesion was neither painful nor itchy and there was no bleeding. A skin examination did not show any other lesions with the same features. A provisional differential diagnosis was made of a nodular malignant melanoma or an atypical blue nevus because of the fast-growing features with a homogeneous blue pattern on dermoscopy

Dermoscopically, the nodular lesion was typified by a homogeneous pattern of structureless bright blue coloration surrounded by a very subtle pigmented network, without vascular elements or a regression struc-

## K E Y W O R D S

dermoscopy,  
eccrine  
acrospiroma,  
nodular  
malignant  
melanoma



**Fig. 1** A nodular pigmented lesion rapidly growing on patient's leg  
**Figure 1.** Numerous petechiae with redness and edema on the face.



**Fig. 2** Firm, dark bluish nodular lesion, in more details.



**Fig. 3** Dermatoscopic Homogeneous blue pattern in a recent spreading skin lesion

ture. No other dermoscopic structures were present (Fig. 3).

On the basis of this analysis, we confirmed the clinical diagnosis and decided to carry out a histopathological examination.

The nodule was surgically removed and sent for histopathology. A  $2.2 \times 1$  cm surgical lozenge was excised with a thinly protruding lesion with a maximum diameter of 0.7 cm. A microscopic analysis revealed a lobulated, benign adnexal tumor derived from distal excretory sweat duct with a prominent clear cell component and a diagnosis of eccrine acrospiroma, also known as hidradenoma, was made.

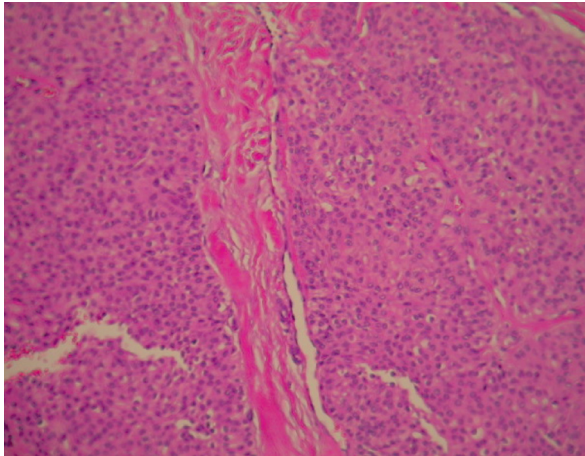
## Conclusion

Acrospiroma eccrine is a tumor derived from eccrine sweat duct epithelium and may be intra-epidermal (hidro-acanthoma simplex), juxta-epidermal (eccrine poroma), or intradermal (dermal duct tumor). Such tumors are comparatively uncommon. There is no indication that heredity or external agents cause these tumors (2). They may recur but rarely undergo malignant change (1).

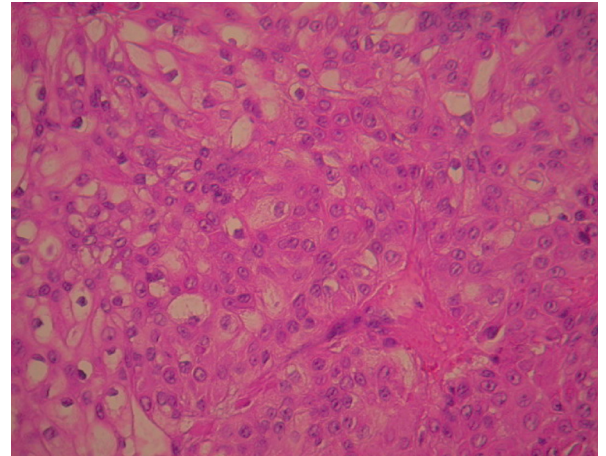
In epiluminescence microscopy, the perception of a blue hue is generally considered a clue to malignancy, especially in clinically equivocal melanocytic skin lesions (3).

Acrospiroma eccrine may clinically mimic a number of benign and malignant skin tumors. Dermoscopy improves the clinical diagnosis of many pigmented and non-pigmented skin tumors, but to date little is known about the impact of dermoscopy in this type of diagnosis (4).

In our experience, these kinds of dermoscopic aspects with rapid evolution of the clinical pathway recommend surgical excision with a histological examination. A diagnosis of eccrine acrospiroma is very uncommon and its discovery in previous studies demonstrated varied aspects, especially regarding dermoscopy. In fact, one previous study dermoscopically described this kind of lesion as having a polymorphous vascular pattern composed mainly of pink to reddish, irregularly shaped and sized structures reminiscent of milky-red areas or red lagoons. Hairpin vessels, dotted vessels, and some linear irregular vessels were also present. This dermoscopic aspect suggested a diagnosis of amelanotic melanoma to the authors (5). In other cases, the dermoscopic features of pigmented



**Fig. 4 a) Hystological examination. A lobulated, benign adnexal tumor derived from distal excretory sweat duct.**



**Fig.4 b) Hystological examination. A prominent Clear Cell component was discovered, it represents a typical feature of Eccrine Acrospiroma.**

poromas, except the maple leaf-like structures and spoke-wheel areas, were similar to those of pigmented basal cell carcinomas (6).

In our case, we found for the first time a homogeneous blue pattern linked to this kind of adnexal neoplasm, clinically masquerading as a nodular malignant melanoma. This color feature could be explained through a simple observation. The cystic nature of this tumor and its localization in a dermal context create this aspect and this dermoscopic pattern based on the Tyndall effect due to the cystic lesion liquid. In the literature this is the first description of this phe-

nomenon associated with this very uncommon benign neoplasm.

However this case report confirms the great difficulty in formulating a clinically and dermoscopically correct diagnosis, and points to the possibility of this histopathological diagnosis after excision of a lesion with a blue homogeneous dermoscopic finding.

Finally, this uncommon neoplasm can be included in a differential diagnosis in evaluating lesions with these particular features, both clinically and dermoscopically.

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## AUTHORS' ADDRESSES

*Alessandro Gatti, PhD, U.C.O Clinica Dermatologica IV piano palazzina infettivi, Ospedale Maggiore di Trieste, Piazza Ospedale 1, 34151, Trieste, Italy*

*Nicola di Meo, PhD, same address*

*Giusto Trevisan, Prof., U.C.O Clinica Dermatologica IV piano palazzina infettivi, Ospedale Maggiore di Trieste, Piazza Ospedale 1, 34151, Trieste,*

*Italy, corresponding author, Tel.: +39 040 399 2056 Fax: +39 040 399 2048,*

*E-mail: trevisan@univ.trieste.it*