### Eccrine poroma: dermoscopical and confocal features of five cases.

### Authors

<u>Francesca Di Tullio</u>, Victor Desmond Mandel, Francesca Peccerillo, Giovanni Pellacani, Francesca Farnetani

Dermatology Unit; Department of Surgical, Medical, Dental and Morphological Sciences with Interest Transplant, Oncological and Regenerative Medicine; University of Modena and Reggio Emilia, Modena, Italy.

# Keywords

Eccrine poroma; adnexal tumor; dermoscopy; reflectance confocal microscopy; non-invasive tool.

## Preferred type of presentation

Oral presentation.

**Background**: Eccrine poroma (EP) is a rare benign adnexal tumor arising from the intraepidermal ductal portion of the sweat gland. It commonly occurs as a single, slowly growing, erythematous, skin-colored, cyanotic or pigmented papule, plaques or nodule. EP occurs usually at the acral sites, but it can develop in other cutaneous sites. It may occasionally mimic malignant tumors including basal cell carcinoma, squamous cell carcinoma and melanoma.

Objective: The aim of this study was to describe dermoscopical and confocal features of EP.

**Methods:** A retrospective analysis of the dermoscopical and confocal characteristics of EP was performed. All diagnosis were confirmed by histological examination.

**Results**: A total of 5 cases of non-pigmented EP was analysed. Dermoscopic evaluation found in all lesions a polymorphous vascular pattern, including at least two type of vessels: hairpin (80%), linear (60%), leaf-like (60%), flower-like (40%) and glomerular (40%) vessels. A white-to-pink halo surrounding the vessels was found in 40% of the lesions. Multiple pink-white structureless areas were found in 4 out of 5 (80%) cases. Only in 2 cases irregular haemorrhagic and blue-white areas were also observed. Reflectance Confocal Microscopy (RCM) revealed the presence of well-demarcated hyporefractile tumor nests, dark holes corresponding to areas of ductal differentiation within the tumor and highly vascularized stroma in all 5 lesions.

**Conclusions:** The great clinical variability of EP gives reason of the appellative of "big simulator". Dermoscopy does not revealed univocal features except from "leaf-flower-like" vessels that have not been described in other types of skin tumors. This characteristic, when presents, may be considered an useful clue for the diagnosis. RCM examination of EP revealed features (hyporefractile tumor nests and dark holes) that relate with their histopathological findings. Dermoscopy and RCM improve the diagnostic accuracy and help for diagnosis, although they cannot replace histology that is still required.

### **References:**

- 1. Nicolino R, Zalaudek I, Ferrara G, *et al.* Dermoscopy of eccrine poroma. *Dermatology*, 2007; **215**: 160-3.
- 2. Aydingoz IE. New dermoscopic vascular patterns in a case of eccrine poroma. *J Eur Acad Dermatol Venereol*, 2009; **23**: 725-6.
- 3. Lallas A, Chellini PR, Guimarães MG, *et al.* Eccrine poroma: the great dermoscopic imitator. *J Eur Acad Dermatol Venereol.* 2016; **30**: 61-3.
- 4. Ferrari A, Buccini P, Silipo V, *et al.* Eccrine Poroma: A Clinical-Dermoscopic Study of Seven Cases. *Acta Derm Venereol* 2009; **89**: 160-4.
- 5. Moscarella E, Zalaudek I, Agozzino M, *et al.* Reflectance confocal microscopy for the evaluation of solitary red nodules. *Dermatology*. 2012; **224**: 295-300.
- 6. .Tachihara R, Choi C, Langley RGB, Andersson RR, Gonzalez S. In vivo confocal imaging of pigmented eccrine poroma. *Dermatology*. 2002; **204**: 185-9.
- 7. Brugués A, Gamboa M, Alós L, Carrera C, Malvehy J, Puig S. The challenging diagnosis of eccrine poromas. *J Am Acad Dermatol*. 2016; **74**: 113-5.
- 8. Bombonato C, Piana S, Moscarella E, Lallas A, Argenziano G, Longo C. Pigmented eccrine poroma: dermoscopic and confocal features. *Dermatol Pract Concept.* 2016; **6**: 59-62.
- 9. Schirra A, Kogut M, Hadaschik E, Enk AH, Haenssle HA. Eccrine poroma: correlation of reflectance confocal microscopy and histopathology of horizontal sections. *J Eur Acad Dermatol Venereol*. 2016; **30**: 167-9.