

## Dermatoscopic Features of a Metastatic Eccrine Porocarcinoma Arising on Lymphedema

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**Key words:** eccrine porocarcinoma, metastatic eccrine porocarcinoma, malignant eccrine poroma, sweat gland tumor

**Citation:** Sgouros D, Routsis E, Almpanis Z, Korogiannos A, Katoulis A. Dermatoscopic features of a metastatic eccrine porocarcinoma arising on lymphedema. *Dermatol Pract Concept*. 2022;12(2):e2022079. DOI: <https://doi.org/10.5826/dpc.1202a79>

**Accepted:** September 15, 2021; **Published:** April 2022

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**Funding:** None.

**Competing interests:** None.

**Authorship:** All authors have contributed significantly to this publication.

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### Introduction

Eccrine porocarcinoma (EPC) is a rare type of skin cancer arising from the intraepidermal portion of eccrine sweat glands or acrosyringium and comprises of 0.005% of all malignant epithelial tumors with an equal prevalence in both sexes and a predominance of elderly patients. The reported incidence may be underestimated because EPC can also mimic clinically and dermatoscopically several other benign or malignant cutaneous tumors (eg seborrheic keratosis, Bowen disease, melanoma, etc.) typically presenting as an asymptomatic, painless and solitary nodule with ulcerated surface also developing in former sites of irradiation, lymphedema, and trauma [1,2]. EPC represents a tumor with aggressive biologic behavior and a tendency for local recurrence and regional lymph nodes metastatic potential (about 20% in both scenarios). The mortality rate of 67%

in patients with lymph node metastases poses EPC as a life-threatening cutaneous neoplasm [2].

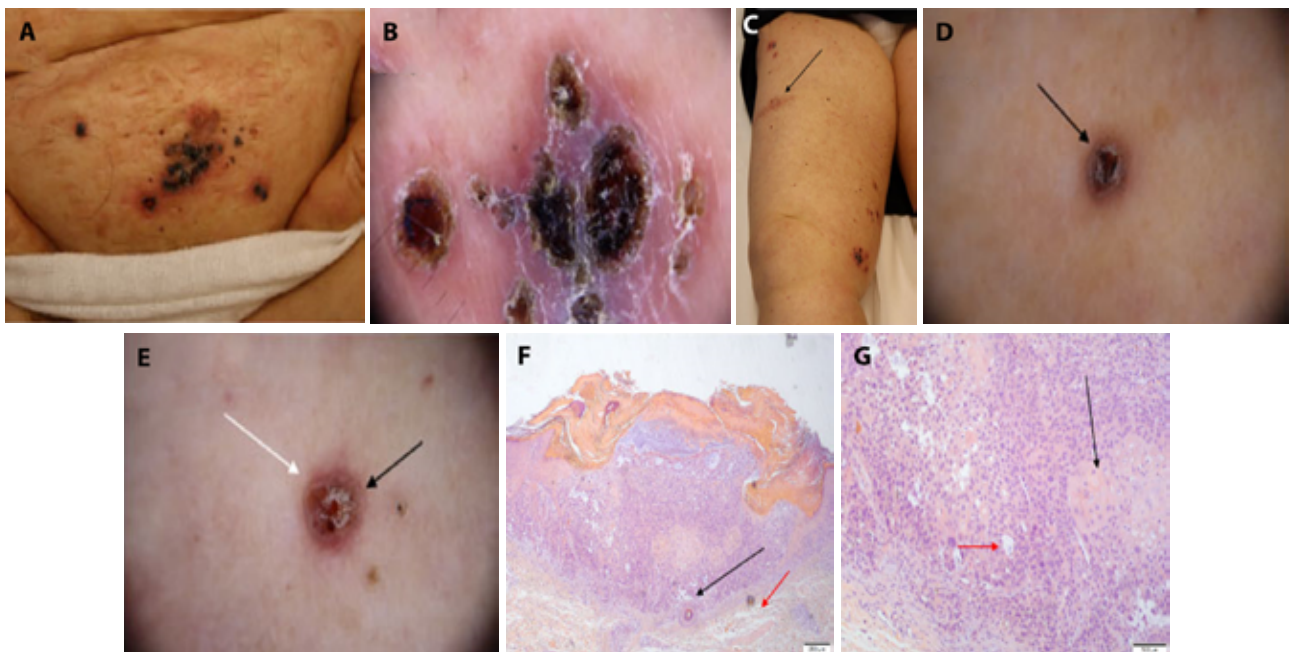
Herein we report a rare case of metastatic EPC with a zosteriform development on the right lower extremity.

### Case Presentation

An 85-year-old woman, Fitzpatrick phototype IV, presented with 1-year history of multiple violaceous-black diffuse papules on the right thigh and a plaque on the mons pubis. She had no symptoms or any discharge such as pain, itch or other. Of note, the patient suffered from a stable lymphedema of unknown origin in the right lower extremity for 3 years while there was a preexisting scar on the right thigh due to a previously excised EPC 2 years ago with clear resection margins. Previous dermatological history included Bowen disease on the left leg presenting 1 year ago. Her

past medical history also included arterial hypertension and diabetes mellitus. The general examination showed no other abnormal findings. Dermoscopy revealed black coloration correlated with crusts covering areas of erosions. Structureless pink-whitish background and a lack of apparent vasculature were additional dermatoscopic findings, as well. Fine scaling surrounding sites of erosions was also evident in all lesions. Moreover, few papules exhibited pink-whitish ovoid areas. Two papules with such dermatoscopic characteristics were excised and histopathological examination showed an invasive, well-differentiated porocarcinoma with focal epidermal attachments and partial

squamoid differentiation (Figure 1). Diagnostic work-up with a computed tomography revealed infiltration of homolateral inguinal lymph nodes. Concerning vascularity our findings are in contrast to published literature since EPC as well as its benign counterpart, eccrine poroma, mostly present with polymorphous vessels imitating amelanotic melanoma [1]. Our observation could be partially explained by the presence of lymphedema that might have caused suppression of vascular structures. In line with current evidence pink-whitish round areas seem to be a common finding among EPCs correlating with edematous sub-epidermal stroma reaction [2].



**Figure 1.** (A) Multiple violaceous-to-black papules coalescing into a plaque on the mons pubis. (B) Dermoscopy reveals that black coloration is associated with crusts surrounded by a structureless dark pink-to-purple background. (C) Multiple papules of a 5 mm of maximum diameter are diffusely arranged on a lymphedematous right thigh. A scar due to a former excision of an EPC can be detected on the upper external part of the extremity (black arrow). (D,E) A hint of fine scaling around areas of erosions and crusts (black arrows) and dermatoscopically evident pink-to-white ovoid structures (white arrow) can be observed. (B, D, E) Lack of apparent vasculature is also prominent in all dermatoscopic images. (F) Malignant neoplastic cells extended from the epidermis into the dermis with infiltrative growth pattern (black arrow) and were composed of large, basaloid and atypical neoplastic cells with hyperchromatic nuclei. Depletion of vessels and lymphatic vascular ectasia due to lymphedema (red arrow) are also prominent in histological images. (G) Eccrine porocarcinoma usually composed of basaloid cells and many times it may show squamoid features (black arrow), resembles squamous cell carcinoma, but has sweat ducts or duct-like structures (red arrow).

## Conclusions

EPC represents a rare malignant cutaneous adnexal tumor with non-specific clinical and dermatoscopic features. History of previously excised EPC and lymphedema constitute risk factors for the development of metastatic cutaneous disease. Dermatoscopically observed pink-to-white ovoid structures and whitish fine scaling surrounding areas of erosions over a vague pinkish background may be of help for the early detection of this life-threatening neoplasm.

**Consent:** Patient has provided written consent for her data publication

## References

1. Sgouros D, Piana S, Argenziano G, et al. Clinical, dermoscopic and histopathological features of eccrine poroid neoplasms. *Dermatology*. 2013;227(2):175–179. DOI: 10.1159/000354152. PMID: 24080919.
2. Edamitsu T, Minagawa A, Koga H, Uhara H, Okuyama R. Eccrine porocarcinoma shares dermoscopic characteristics with eccrine poroma: A report of three cases and review of the published work. *J Dermatol*. 2016;43(3):332–335. DOI: 10.1111/1346-8138.13082. PMID: 26333057.