

# Porocarcinoma - Case report <sup>\*</sup>

## Porocarcinoma - Relato de caso

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**Abstract:** Eccrine porocarcinoma is a rare, malignant neoplasm of eccrine sweat glands. It often occurs in elderly people, mean age of 67.5 years. The clinical features are variable and their localization is not related to sweat-gland concentration, occurring mainly on the feet and legs. Disease diagnosis and treatment should be as early as possible in order to avoid tumor aggressiveness that occurs in 20% of the cases. The authors present a case of extensive porocarcinoma on the thorax of a 71-year-old male patient..

**Keywords:** Acrospiroma; Carcinoma; Eccrine glands; Sweat gland neoplasms

**Resumo:** O porocarcinoma écrino é uma neoplasia maligna, rara, das glândulas sudoríparas écrinas e, com maior frequência, acomete os indivíduos idosos, com idade média de 67,5 anos. Apresenta manifestações clínicas variadas e sua localização não se correlaciona com a concentração das glândulas sudoríparas, ocorrendo, principalmente, nos pés e pernas. O seu diagnóstico e tratamento devem ser precoces para evitar a agressividade do tumor, que ocorre em 20% dos casos. Os autores relatam o caso de um porocarcinoma extenso no tórax, em paciente do sexo masculino, de 71 anos.

**Palavras-chave:** Acrospiroma; Carcinoma; Glândulas écrinas; Neoplasias das glândulas sudoríparas

### INTRODUCTION

Eccrine porocarcinoma was first described by Pinkus and Mehregan in 1963.<sup>1</sup> It is a rare, malignant neoplasm that originates in the eccrine sweat glands acrosyringium, representing between 0.005 and 0.01% of skin tumors.<sup>2</sup> It usually occurs in elderly people and women, with predominance of lower limb lesions, followed by trunk and head.<sup>3</sup> It is clinically presented in varied forms and metastases may occur in 20% of cases for regional lymph nodes and in 10% of cases for internal organs.<sup>4</sup> A normal computerized tomography indicates a better prognosis.<sup>5</sup> Many therapeutic possibilities have been reported, with variable results; it is more common to propose conventional surgical removal or Mohs micrographic surgery. Surgical excision of the primary lesion is curative in

70 to 80% of cases.<sup>4</sup> The objective of this report is to present a rare neoplastic lesion of chronic progression and large dimensions, whose diagnosis was delayed by the clinical presentation and whose treatment proved to be challenging.

### CASE REPORT

A 71-year-old male patient, leukodermic, from Bezerros, was referred to the outpatient clinic of the Dermatological Studies Center of Recife (Centro de Estudos Dermatológicos do Recife - CEDER) of the Charity Hospital of Recife (Santa Casa de Misericórdia) due to the onset of lesion 15 years before, which started on the anterior thorax with slow growth, associated with a localized burning sensation.

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On the dermatological examination, confluent erythematous plaques with infiltrated borders of various sizes were observed, covered by yellow crusts, on practically the entire anterior thorax and extending to the right shoulder (Figure 1). On the left could be seen an infiltrative and vegetating lesion on an erythematous base, measuring 0.7 cm (Figure 2). Biopsies of three distinct lesion areas were performed, as well as total removal of the exophytic lesion located on the left hemithorax; the material for the histopathological examination was fixated in formalin 10% and stained by the hematoxylin-eosine method. The histological examination identified a predominantly intraepithelial neoplasia composed of basaloid cells, showing the formation of small ducts. The cytological atypia was not pronounced, but there were many mitotic figures and the exophytic lesion exhibited areas of dermal invasion. The final diagnosis was extensive intraepithelial porocarcinoma *in situ* with areas of invasion (Figure 3). The immunohistochemistry for p-53 was positive in most of the neoplastic cells, and the CEA (carcinoembryonic antigen) enhanced luminal structures (Figure 4). Due to the extension of the lesion, the patient was subjected to two distinct treatments for the intraepithelial component: the left hemithorax received 20 night applications of topical 5-Fluorouracil at 5% with a two-day interval and the right hemithorax 2 sessions of photodynamic therapy with an eight-day interval, using methyl aminolevulinate followed by red light irradiation, wave length 680nm (Figures 5 and 6). The invaded area was resected with a safety margin. The intention was to observe lesion improvement comparatively, with different therapeutic options. The patient was oriented to have tumor screening by means of computerized tomography, but he refused it.



FIGURE 2: Detail of vegetating lesion

### DISCUSSION

Eccrine porocarcinoma is a rare, malignant tumor of eccrine sweat glands. Its histogenesis is unknown and it is believed that it is developed in the acrosyringium.<sup>6,2</sup> It is histologically classified into two entities: the intraepidermal and the dermal porocarcinoma. The intraepidermal type grows horizontally and produces pagetoid infiltration along the epidermis; the dermal form presents nodular aggregates, at this point usually without connection with the epidermis.<sup>3</sup> The patient presented an intraepidermal lesion with numerous mitotic figures, as well as areas that were already invading the dermis. The clinical appearance of the eccrine porocarcinoma is not specific, presenting lesions of the nodule, papule and plaque forms that vary between 1 and 10 cm, with a 2.4 cm average.<sup>2,7,8</sup> As also reported in the Mulinari-Brenner



FIGURE 1: Extensive erythematous plaques with infiltrated borders

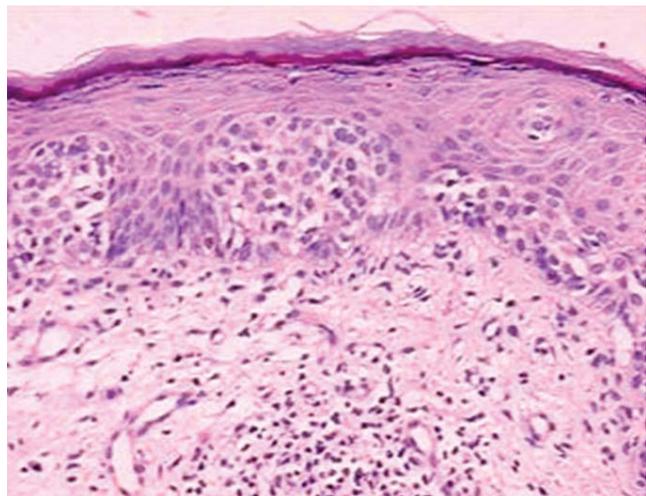


FIGURE 3: Intraepithelial nests of basaloid cells

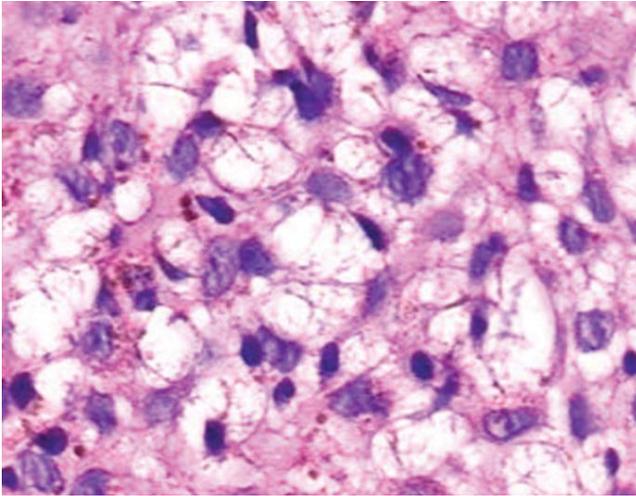


FIGURE 4: Duct formation



FIGURE 6: After treatment with methyl aminolevulinate photodynamic therapy

and cols review, the lesions varied between 1.2 x 2.0 and 4 x 5 cm.<sup>9</sup> In the case presented, the lesion was extensive, affecting the entire anterior thorax, a less



FIGURE 5: After treatment with 5-Fluorouracil

common region, seen in 24% of the cases described in the literature.<sup>10</sup> The most affected locations, in 44% of cases, are the lower limbs, with 11% for the leg and 10% for the feet.<sup>10</sup> Other places less frequently described are the eyelids, penis and vulva.<sup>11-14</sup> It occurs with greater frequency in females and a 12-case study showed higher incidence in the age group with mean age of 70 years.<sup>4,8</sup> Dermatological diseases such as seborrheic keratosis, pyogenic, granuloma, amelanotic melanoma, squamous-cell carcinoma and basal cell carcinoma composed the differential diagnosis. In the case reported the extension of the tumor, its presentation and location contributed to the diagnostic and therapeutic difficulties. There are few reports of porocarcinoma with such characteristics in the literature. The therapeutic response observed with photodynamic therapy was considered superior when compared with the use of 5-fluorouracil, both when judged by the patients and when evaluated by the dermatologists following the case, which determined its choice as treatment proposal for the entire extension of the lesion. □

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