

# A Large Erosion of the Scalp

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#### **Case Report**

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#### **Abstract**

Erosive pustular dermatosis of the scalp (EPDS) is a rare inflammatory disease affecting elderly people with photodamaged scalps. The typical signs include pustules, erosions, and crusts mainly occurring after a well-identified or unsuspected local trauma. The diagnosis may be difficult because it resembles and is often associated with most common diseases affecting the scalp and has no specific histologic patterns. The current article presents a case about an initially misdiagnosed EPDS. Our patient presented an atypical form, without any pustules, associated with an actinic keratosis (AK) histology compatible with the clinical picture. He was treated with topical corticosteroids with a complete remission in one month. The case underlines the importance of considering EPDS as a differential diagnosis of common diseases, such as AK and skin cancer, to avoid treatments that would worsen it (cryotherapy, photodynamic therapy, surgery...) and lead to scarring.

**Keywords:** Pustular dermatosis; Actinic keratosis; Scalp

# **Case Report**

A 76-year-old man presented a 3- month history of unhealing erosion of the scalp despite local treatment, topical and systemic antibiotics. He had a history of actinic keratosis (AK) and a recent trauma. The biopsy of the edges showed an actinic keratosis. When he was referred to our clinic, he presented a 10cm erosion associated with two

recent satellite erosions (Figure 1). Further biopsies were performed to rule out a transformation into carcinoma. Two weeks later, the patient presented the same erosion with crusts, and rare pustules (Figure 2). The diagnosis of erosive pustular dermatosis of the scalp (EPDS) was suspected. The second set of biopsies showed ulceration without tumour cells.



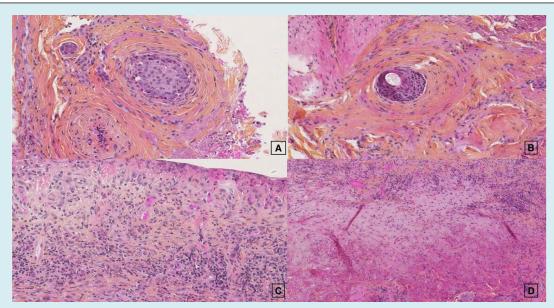
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Figure 2: Multiple erosions, pustules (black arrows) and purulent drainage.

However, dermal elastosis with atrophic hair follicle, suppurative folliculitis and a lymphocytic and neutrophilic infiltrate were found (Figure 3) and were consistent with the

diagnosis of EPDS. The patient was then treated with topical corticosteroids leading to full remission in one month.



**Figure 3:** Histologic patterns of the lesion (*magnification x 100*). A. Suppurative folliculitis. B. Atrophic hair follicle. C. Lymphocytic and neutrophilic infiltrate. D. Elastotic derma

Erosive pustular dermatosis of the scalp (EPDS) is a subtype of localized amicrobial pustulosis and is considered as a rare inflammatory disease affecting older women and to a lesser extent bald men [1] (sex ratio: 2/1). The triggering factor seems to be a local trauma, mostly iatrogenic, (including surgery, radiotherapy, laser, cryotherapy, and photodynamic therapy) on photo-damaged scalps [1,2,4,5]. It is characterized by sterile painful pustules, erosions and crusts. The diagnosis may be difficult, as it is frequently associated with other frequent sun-related diseases affecting the same area such as AK and cutaneous carcinomas, and because there are no specific histologic features [2,3].

*Piccolo V. et al.* (3) reported indeed a case series of EPDS with an initial misdiagnosis. They showed that among all misdiagnoses the most common were skin malignancies including KA, basal cell carcinomas and squamous cell carcinomas.

Physicians should be aware of these atypical clinical presentations. Our case illustrates how EPDS can be easily misdiagnosed if the most likely presumption of a precancerous skin growth or skin cancer is not challenged enough.



**Figure 4:** Complete healing with cicatricial alopecia.

To conclude, identifying EPDS is crucial to initiate the adapted treatment to prevent cicatricial alopecia and avoid unnecessary therapeutics that can worsen it, such as surgery of precancerous lesions or carcinomas [2].

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