Pseudoepitheliomatous Hyperplasia: An Uncommon Reaction in Tattoos

Hiperplasia seudoepiteliomatosa: una reacción infrecuente de los tatuajes

To the Editor:

The growth in popularity of tattooing in recent decades has coincided with an increase in the number of articles describing adverse effects associated with tattooing. Complications associated with tattoos include cutaneous and systemic infectious processes, inflammatory reactions with varied histological patterns, the appearance of benign or malignant skin tumors in tattooed areas of skin, and various dermatoses in tattooed areas resulting from isomorphic phenomena.  

A 39-year-old man consulted for an itchy rash in the red-ink areas of a tattoo completed 1 month earlier. Physical examination revealed well-defined, firm, raised, erythematous hyperkeratotic lesions coinciding with the areas of red ink (Fig. 1). Dermoscopy showed rounded or oval-shaped areas of variable size with an erythematous center and a pinkish periphery, separated from one other by yellowish scales.

He began treatment with high-potency topical corticosteroids under occlusion, without improvement. Two subsequent subcutaneous corticosteroid infiltrations slightly improved the pruritus, but had no effect on the lesions. CO2 laser treatment was scheduled, but the patient failed to attend the appointment.

Among complications of tattoos, pseudoepitheliomatous hyperplasia is a rare reaction. It consists of irregular hyperplasia of the epidermis with no atypia and little mitotic activity, accompanied by dermal inflammatory infiltrate with a reactive histological pattern in response to the damage caused.  

Because only isolated cases have been described and a few short series of patients published, 1-3 there are limited data on this entity and its response to treatment. Among the cases described, more than half occurred in areas tattooed with red ink. Most, including the present case, occurred within 3 months of receiving the tattoo. This temporal association can aid diagnosis.

It is important to differentiate this lesion from true neoplasms such as squamous cell carcinoma, verrucous carcinoma, keratoacanthoma, and viral warts.  4-11

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Figure 1  Tattoo on the left leg. Well-defined raised, thickened lesions are evident in the red-colored areas of skin, with no surrounding inflammatory reaction.

Figure 2  Dermoscopy image. Rounded and oval structures of variable size with an erythematous center and pinkish periphery, separated from one other by yellowish scales.

Figure 3  Histopathological image. A, Epidermal hyperplasia, hyperkeratosis of the corneal layer, and pigment deposition in the superficial dermis accompanied by inflammatory infiltrate (hematoxylin-eosin, original magnification ×4). B, Detail of pigment deposits inside histiocytes and extracellular cells, accompanied by lymphohistiocytic infiltrate (hematoxylin-eosin, original magnification ×40).

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Treatments described include high-potency topical corticosteroids, which were effective in one case,² and surgical excision (3 patients),⁵,⁶ which was not considered in the present case owing to the extent of the lesions. Successful treatment with CO₂ laser has been recently reported.⁷ In several cases, patients have been lost to follow-up.

We present a case of pseudoepitheliomatous hyperplasia as a reaction to red tattoo ink. The literature on this characteristic reaction is scarce. This is the first such case described in Spain, and the first for which accompanying dermoscopic images are provided.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References


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Treatment of Localized Cutaneous Leishmaniasis With Intraleusal Meglumine Antimonial and Photodynamic Therapy

Tratamiento de la leishmaniasis localizada mediante el antimoniat de meglumina intraleusal y la terapia fotodinámica

To the Editor:

Leishmaniasis, a sandfly vector–borne protozoan infection, encompasses a wide spectrum of clinical presentations. The most common form of Leishmaniasis is cutaneous leishmaniasis.⁻¹ It affects primarily adults between the third and 5th decades of life and the lesions are commonly located on exposed body parts. The diverse clinical spectrum of CL depends upon various factors, such as the specific causative strain, geographic location, parasitic load and host immune response.

Case Report

A 31-year-old Portuguese male presented with a 4-month history of a solitary, asymptomatic, 4 × 2 cm large, indurated crusty plaque on his forehead (Fig. 1). His medical history was unremarkable, except for early latent syphilis treated 1 year ago with good serological response. His family history was unremarkable. He denied any prescribed or over-the-counter medication. His immunization status was up-to-date and his social and travel history were significant for a recent travel to Mexico about 5 months ago.

The skin biopsy revealed a dermal diffuse inflammatory infiltrate composed by lymphocytes and histiocytes. Leishmania amastigotes were identified in the cytoplasm of dermal macrophages.

The physical examination was otherwise normal. Otorhinolaryngologic endoscopy, bone marrow aspirate and abdominal ultrasound were performed to exclude mucous