

ACTAS Derma-Sifiliográficas

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CASE FOR DIAGNOSIS

Facial Lesions after Tattooing

Lesiones faciales tras tatuajes

Clinical History

The patient was a 38-year-old woman of Columbian origin with no past history of interest. She was seen for lesions that had appeared 4 to 5 months earlier on both eyebrows, the borders of the eyelids, and the lips. She reported having had cosmetic tattoos on the eyebrows and eyelids and collagen injections for lip augmentation 7 years earlier, and had repeated the tattooing of the eyebrows and eyelids 2 years before the consultation.

Physical Examination

On physical examination, there were plaques on the eyebrows and papules on the borders of the eyelids; the lesions were brown-colored, infiltrated, and of firm consistency, and they were only present in the areas of the tattoos (Figure 1). The lips were edematous and of firm consistency.

Additional Tests

A skin biopsy taken from one of the eyebrows showed a non-necrotizing epithelioid granulomatous reaction in the reticular dermis beneath a normal epidermis (Figure 2). Blood tests revealed white cell count of 13×10^9 cells/L, with 52.1% neutrophils and 42.1% lymphocytes; the angiotensin converting enzyme level was 52.6 IU/L (normal value, 8-52 IU/L). The chest x-ray showed no pathological changes.



Figure 1

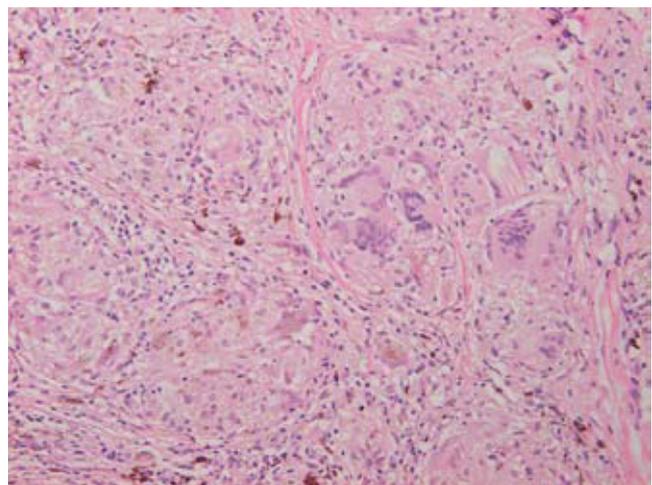


Figure 2 Hematoxylin-eosin, original magnification $\times 20$.

What Is Your Diagnosis?

Diagnosis

Sarcoid reaction in tattoo scars.

Clinical Course and Treatment

We started treatment with prednisone at a dose of 50 mg/d, which led to a significant improvement in the lesions after several months. In subsequent follow-up the patient has reported no new symptoms.

Comments

In 1939, Madden¹ was the first author to describe the appearance of sarcoid granulomas in tattoos in a patient who presented no systemic involvement or radiological signs of disease.

Later, Sulzberg and Tomach² described the appearance of eczematous and sarcoid-like inflammatory reactions in red tattoos. They considered that these granulomatous reactions could be a result of local hypersensitivity reactions to the pigment.

Lubeck and Epstein³ reported the first case of granulomas in tattoos in a man previously diagnosed with systemic sarcoidosis and concluded that the concomitant appearance of systemic disease and the involvement of tattoos was suggestive of sarcoidosis. Since that time, other authors have reached similar conclusions.

Sarcoid reactions are one of the late complications of tattoos. They are rare,⁴ but can develop within weeks after performing a tattoo or years later,⁵ as occurred in our patient.

The etiology and pathogenesis are still a subject of debate; some authors consider the reaction to be similar to a Koebner phenomenon while others believe it to be a foreign body reaction.⁶

Clinically it presents as red-brown papules, nodules, or plaques that are typically limited to the area of the tattoo and may occasionally be pruritic.

Histopathology reveals the presence of granulomas formed of epithelioid histiocytes and multinucleated giant cells that are in turn surrounded by helper-inducer lymphocytes.^{5,6}

The principal differential diagnosis is with sarcoidosis. The majority of authors consider that the appearance of

noncaseating granulomas in a single organ does not allow us to speak of systemic sarcoidosis, which would require confirmed involvement of at least 2 organs.

Treatment depends on the symptoms, degree of organ damage, and results of the additional tests. Oral, topical, or intralesional corticosteroids are the therapeutic option of first choice.

After an exhaustive review of the literature, we concluded that, if sarcoidosis is considered to be an anomalous reaction to persistent antigens, it would be difficult to differentiate between sarcoidosis and a sarcoid reaction.⁵ The presence of sarcoid reactions to tattoos therefore requires a more extensive study to be performed to exclude the presence of systemic granulomatous disease.

Conflict of Interest

The authors declare that they have no conflict of interest.

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