LETTER TO THE EDITOR

A tattoo complicated by allergic contact dermatitis and panniculitis

Editor

Permanent tattooing involves the deliberate introduction of pigments into the dermis through punctures. We describe a patient with an acute local allergic reaction at new tattoo sites accompanied by systemic symptoms and panniculitis as potential complication.

A 23-year-old previously well man presented with a 2-week history of fever of 39°C, malaise, painful nodules and plaques on his legs with tender inguinal lymphadenopathy, which had progressively developed within 1 week following professional tattooing on the left knee. On examination, he had acute oozing and crusting lesions along the new black tattoo lines on his left knee and thigh as well as multiple painful erythematous nodules on both lower legs and left thigh (Fig. 1). Histology of a biopsy from a leg nodule revealed a septal and lobular partially granulomatous panniculitis. Special stains and tissue cultures for infections were negative. The C-reactive protein was increased. All other relevant clinical and laboratory investigations were normal. The patient improved on bed rest, oral analgesics and topical clobetasol propionate within 3 weeks without scarring. Patch testing showed sensitization to potassium dichromate (+++) and to cobalt(II)-chloride (+).

Late type allergic reactions to tattoo pigments have been reported.[1] The red, green, yellow and blue colours are usually associated with the presence of mercury, chromium, cadmium and cobalt respectively. However, other pigments such as titanium, aluminium, sulphur or copper are increasingly used.[1] Our patient was unique. He developed hyperacute eczema at the tattoo sites in addition to infiltrated plaques and subcutaneous nodules, the histology of which showed mixed panniculitis, which is a yet unreported hypersensitivity reaction to tattoo pigments. The reactions to chromium and cobalt probably correspond to contaminants in the black pigment. Although eczematous, lichenoid and granulomatous reactions have been observed,[2] the mixed granulomatous panniculitis differs from the localized and systemic sarcoidal reactions to tattoos previously reported. The latter tend to occur months or years after tattooing. Our case was distinct from previous observations of sarcoidosis associated with erythema nodosum and sarcoidal reactions present in tattoos.[3,4] He had no clinical, laboratory and histopathological findings that were suggestive of sarcoidosis. Erythema nodosum in association with a local tattoo reaction developing 2 months after tattooing has been described.[5] However, the lesions were thought to be secondary to *Mycoplasma pneumoniae* infection.



Figure 1 Clinical presentation of tattoo with crusting on the left knee and erythematous nodules on both legs.

Our observation of panniculitis in combination with hypersensitivity reaction to tattoos extends the spectrum of tattoo-related complications as well as of potential triggers of panniculitis.

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