



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

GRANULOMATOUS REACTION RELATED TO PERMANENT MAKEUP TATTOOS: CLINICAL AND DERMOSCOPIC FEATURES.

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Introduction: Cosmetic tattoos have become very popular in the last decades. Although generally safe, a wide spectrum of adverse skin reactions has been reported. Infections, allergic reactions, inflammatory and autoimmune diseases, such as sarcoidosis, have been associated to this common practice. All tattoo reactions should be biopsied to rule out systemic complications. Dermoscopic patterns can be useful for diagnosis and selection of an adequate biopsy site.

Objective: Describe clinical manifestations and dermoscopic patterns in granulomatous reactions to cosmetic tattoos.

Materials and Methods: A retrospective study of ten patients with cosmetic tattoos who had a cutaneous reaction to it was done. Demographic and clinical characteristics as well as dermoscopic and histopathologic patterns were recorded.

Results: All patients were women, with a mean age of 51.9 years. The clinical presentation included elevated yellow, orange, and/or reddish plaques, sharply demarcated along the ink line of the tattoo. Pruritus was the main complain. Time between the first application and onset of complaints varied between 3 to 18 years. Relevantly, all patients got their cosmetic tattoo retouched several times before cutaneous manifestations began. Tattoo pigments with the most cutaneous reactions were red and brown. Two of the ten patients were diagnosed with systemic sarcoidosis. Histopathological evaluation revealed foreign body granulomatous reaction. Dermoscopically, we identified crystalline structures as the most frequent feature, followed by yellowish-orange patches, blue pigment, white hairs, and irregular linear vessels.

Conclusions: Tattoos for cosmetic purposes are an increasing practice worldwide and with them their complications. Dermatologist should be aware of these complications to approach an accurate diagnosis and therapy. The yellowish orange patches represent the





granulomatous inflammation found within the dermis, this dermoscopic feature can aid in choosing the best site for a biopsy to be performed.

