

CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

ALLERGIC CONTACT DERMATITIS DUE TO PARAPHENYLENEDIAMINE IN HENNA TATTOO AND ALOPECIA AREATA, COEXISTENCE OR COSTIMULATION?

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Background: black henna is often mixed with paraphenylenediamine (PPD), top 5 skin sensitizer and can cause allergic contact dermatitis (ACD). Prevalence of ACD due to PPD in general population is 0.8% to 1.5%. In pediatric population 1 of 20 diagnosed with ACD is caused by PPD and 50% secondary to Henna tattoo. This skin reaction is proportional to concentration and time of exposure to PPD.

Male 6-year-old, presented with a 4-week history of a dermatosis. Examination revealed an erythematous, papulovesicular, dermatosis with blood crusts and eczema, pruritic, following a geometric "S" figure of the tattoo, on his left upper arm, it started 15 days after the application of a henna tattoo. A diagnosis of Allergic contact dermatitis due to PPD was made, initiating treatment with methylprednisolone aceponate cream. He returned with dissemination of the dermatosis, oral prednisolone was added, after remission, epicutaneous tests were placed, resulting positive PPD +++ erythema and infiltration exceeding the patch, 72 hr reading with blister and exulceration, also positive Nickel, next month he came back with 4 alopecia areas on scalp, positive activity signs. Also treated with clobetasol lotion with resettlement of the alopecic areas in 30 days. At annual control only dark pigmentation persists.

Observation: immunological background, activation of TH2 pathway, CD4+ and C8+ T lymphocytes and same cytokines are common in both diseases. It is not established yet whether the coexistence of these two is caused by a co-stimulation of an immune mechanism mediated by T cells or by the inactivation of a suppressor mechanism. But it is true that both have as common denominator the presence of CD8 cell clones.

Key message: PPD sensitization is happening in children because of henna tattoos, with a high risk of developing ACD, this activity should be strongly discouraged.