

**Allergy to
p-phenylenediamine from
a black transferable
picture tattoo –
hypopigmentation and
sensitization to clothing
dyes in a little girl**

Contact Dermatitis 2008; 58: 174–175

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Key words: allergic contact dermatitis;
black transferable picture tattoo; clothing
dyes allergy; persistent hypopigmentation;
p-phenylenediamine.

Recently, temporary paint-on henna tattoos have become increasingly popular in many countries as an alternative to permanent tattoos. Allergic contact dermatitis to tattoos has been reported in adults and also in children. The most likely causative agent for the eczematous reactions is *p*-phenylenediamine illegally present in the commercial black henna, which is used to obtain a dark, blackish colour (1, 2). We describe a case of allergic contact dermatitis because of clothing dye allergy developed as a result of temporary henna tattooing.

The condition was characterized by persistent hypopigmentation after the resolution of eczematous lesions and acute dermatitis of lower limbs after wearing dark-coloured cotton tights.

Case Report

A non-atopic, 8-year-old girl was referred to the Nofer Institute in December 2006 because of acute dermatitis of the feet, legs, and lower back, after wearing dark-brown cotton tights. 4 months before admission, the girl stuck a black transferable picture tattoo, purchased at a small shop, onto her arm. 2 days later, she developed a pruritic, vesicular reaction within the tattoo area. She was successfully treated with topical steroids; but unfortunately, she developed hypopigmentation at the tattoo site. Her grandmother reported the girl had never had her hair dyed.

We performed patch tests with the European Standard and Textile Colours and Finish series (Chemotechnique Diagnostics, Malmö, Sweden). Positive results for *p*-phenylenediamine (+++), Disperse Orange 1 (+++), Direct Orange 34 (+++), and Disperse Yellow 3 (++) were observed at 2 and 4 D after the test.

Discussion

The patient had an allergic reaction after the black transferable picture tattoo. This would be unlikely to be due to PPD since Danish authors have analysed the content of the dyes in 36 transferable pictures and did not find PPD in black colourants (3). She developed sensitization to clothing dyes as well. In addition, she also had persistent leukoderma at the site of black transferable picture tattoo. Recently, there have been reports of allergic reactions with persistent hypopigmentation only and sensitization to clothing dyes because of temporary tattooing in children (4–6). Yet, to the best of our knowledge, our report is the first observation of dermatitis and persistent hypopigmentation followed by clothing dye allergy as a delayed effect of using a black transferable picture tattoo.

The growing evidence for contact dermatitis following temporary tattooing indicates a serious problem

with active sensitization, especially in children.

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