

BRIEF REPORT

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BULLOUS ALLERGIC CONTACT DERMATITIS TO PURE HENNA IN A 3-YEAR-OLD GIRL

Abstract: Natural henna is known to have a very low allergic potential. We describe here an exceptional case of bullous contact dermatitis caused by pure henna.

Henna (*Lawsonia inermis*) is part of the family of Lythraceae, which is known as a source of the most common natural dye (1). It is used for the coloring of hands, feet, and hair. Henna is known to have a very low allergic potential. Although widely used, there are only a few reports of allergic reactions to pure henna (2,3). We report here an uncommon case of bullous contact dermatitis caused by pure henna in a 3-year-old girl.

CASE REPORT

A 3-year-old girl presented to our department with acute bullous eczema of the left hand and two feet, evolving for 5 days and appeared a day after applying henna (Fig. 1). Our patient has no past history of atopy. Her mother reported that paste of henna was obtained from powdered dry leaves of this plant mixed with water. She denied using neither chemical nor natural substances as additives to henna. She also mentioned that her daughter



Figure 1. Erythema, edema, vesicles, and bullae on the henna site.

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had already applied the same product but with no side effects. The patient was treated with oral oxacillin and topical corticosteroid with complete remission of lesions. The diagnosis of a contact dermatitis to henna was considered. Two months after complete resolution of lesions, the patch tests were performed with the European standard series (Trolab, Germany) and with the paste prepared from dried leaves of henna (10% in pet). Reactions were read at the 48th and 72nd hour following application. Patch test showed a +2 reaction to henna (10% in pet) (Fig. 2). PPD (p-phenylenediamine, 1% in pet) was negative at the 48th and 72nd hours.

DISCUSSION

Henna is a plant cultivated in North Africa, India, and Sri Lanka. Since ancient times, it is used among Islamic and Hindu populations to dye the skin, hair, fingernails, leather, and wool (2,3).

Although being widely used, sensitivity to pure henna appears to be exceptional (3). This natural dye is a safe substance with a very low allergenic response to the active ingredient Lawsonia (2-hydroxy-1, 4-naphthoquinone). In the majority of cases, sensitization to henna is related to the addition of chemical coloring agents especially para-phenylenediamine (PPD) (4,5). The latter is added to darken the dye and to improve its fixation.

Childhood allergic contact dermatitis to henna is rare (6). There are only few cases reported and most of them were caused by PPD (6). In this report, we describe a pediatric case of contact dermatitis to pure henna. To the best of our knowledge, only one similar case confirmed by patch test has been reported so far (6,7). It should be noted that the patient previously reported, reacted to both natural henna and PPD (7). Thus, our case is unusual in that the sensitization was only to pure henna.



Figure 2. 2+ reaction to natural henna.

Moreover, it is the first Tunisian pediatric case despite its wide use in our country (5).

Certainly, the low incidence of sensitization to pure henna confirms the low allergic potential of this vegetable. However, it is possible that pure henna is rarely tested. That is why we believe that henna should be tested in every case of contact dermatitis to henna tattoos.

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