EN DOS PATIENTES PEDÁTICOS, ALERGIA DE CONTACTO A CLORHEXIDINA. J. Borbujo, T. Mohedano, S. Sanz-Sánchez, G. Córdoba. 

CASE AND RESEARCH LETTERS

Fig. 1. Exudative vesicular lesions on the knee (Patient 1).

Fig. 2. Positive result in an open test (upper) and semicorneous crustive test (lower) (Patient 1).

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Dos pacientes pediátricos, alérgicos de contacto a clorhexidina.

To the Editor:

Allergic contact dermatitis has become more and more frequent in children in recent years. This increase seems to be related to a greater exposure to allergens at younger age, changes in cosmetic habits, and greater hygiene.

In our series, two children were diagnosed with allergic contact dermatitis to clorhexidine. Both reactions were of the acute type, spontaneous, with typical vesicular lesions at 24 hours, which disappeared a few days later. The lesions were noted on the areas of application of the product.

The patients were 2-year-old boys with contact allergy to pet. One week before admission, a rash appeared on the right knee, affecting the area of the patch test and the antiseptic. She was prescribed topical betamethasone 1%, which spontaneously disappeared in the following days.

The diagnosis was made by patch testing with 5% clorhexidina in a solution of ethanolic alcohol (3:2).

Tests were performed with semiocclusive and open dressings, with lesion control at 24 hours. The results were read after 72 hours. The patch test results with clorhexidina were positive in both patients, with lesions at the patch test site.

The immediate reading at the delayed reading (1 week).

The results were as follows:

Patient 1: A 2-year-old boy with pruriginous rash at 24 hours.

Patient 2: A 2-year-old boy with contact allergy to pet.

Conclusions:

The study using patch tests is to evaluate possible reactions caused by Clorhexidinum, the patch test not to be performed on the same site. 

The results of the patch test at 24 hours were positive in both patients, with lesions at the patch test site, with increasing results in the following days (Fig. 1).

The positive results in both patients were coinciding with the recall periods and medical history of allergic contact dermatitis.


Contact dermatitis in 2 pediatric cases.

Allergic contact dermatitis due to chlorhexidine in children.
and 10% in water and chlorhexidine 0.5% in water yielded positive results to chlorhexidine at 48 and 96 hours. When antiseptic with chlorhexidine was suspended, the patient did not develop further lesions. The parents decided not to continue with the study.

Chlorhexidine is a topical fungicidal and bacterial antiseptic that has been widely used in health care since 1954, generally in the form of digluconate, aqueous solutions, or alcohol-based solutions. It is used for hand washing, hygiene of hospitalized patients, presurgical antiseptic baths, and disinfection of the surgical area. It is also applied before placement and care of catheters and may be used to impregnate medical devices (e.g., cannulas, dressings, catheters). Furthermore, in recent years, chlorhexidine has been increasingly used as a biocide in all types of cosmetic products.

Chlorhexidine can lead to local irritation. Other adverse effects, such as tooth discoloration and fixed drug eruption, are less common. In addition, chlorhexidine can potentially cause allergic contact dermatitis, photosensitization, urticaria, and anaphylaxis. Some patients experience both immediate and delayed hypersensitivity reactions; therefore, even mild to moderate allergic dermatitis may indicate a potential risk of severe immediate-type reactions during subsequent exposure to chlorhexidine in this population.

However, the sensitizing capacity of chlorhexidine is poor despite the frequency of its use. Series of patients assessed using patch tests show that between 0.5% and 13.1% are sensitized to chlorhexidine, although in Europe, 1% is a more realistic prevalence. The appropriate concentration for testing chlorhexidine has not been established. A concentration of 0.5% is probably more appropriate than 1%, since it leads to fewer irritant reactions.

We report the cases of 2 children with allergic contact dermatitis to chlorhexidine, in 1 of whom sensitization was shown to be immediate. In patients with a positive patch test result to chlorhexidine, the workup should be completed with skin tests in order to assess the possibility of immediate-type allergic reaction. Furthermore, in the case of a patient with urticaria or anaphylaxis during medical or dental treatments, chlorhexidine should be considered a possible trigger, alongside latex, anesthetics, and other drugs.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References


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