

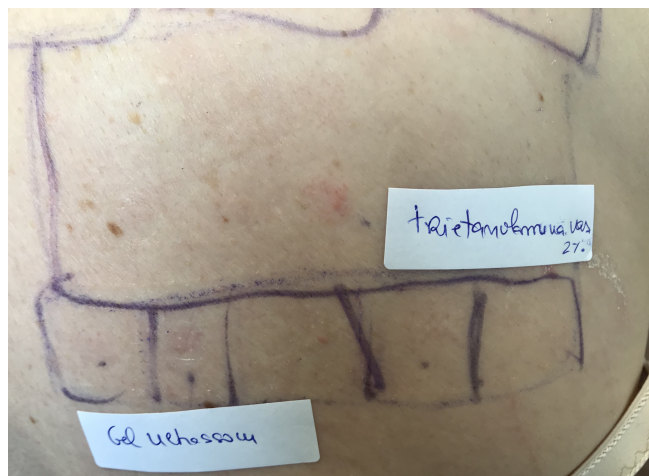


FIGURE 1 Patch test readings on D3 showing a positive reaction to triethanolamine (+) and Fourmag, a brand of ultrasound gel (+)

Contact allergy to ultrasound gel is rare, and most of the cases were associated with propylene glycol, parabens, isothiazolinones, and methylidibromo glutaronitrile in Euxyl K 400.^{3,4} Patch tests with sensitized patients' triethanolamine-containing preparations are frequently negative. Therefore, it is advisable to test the components of the ultrasound gel, including emulsifiers, to the extent possible, in patients with suspected ultrasound gel-related contact dermatitis. If no conclusive positive result is achieved, the remaining ingredients should be obtained from the manufacturer for full testing. The other ingredients were not tested, but these were not suspected to be contact allergens.

To our knowledge, this is the first case of contact dermatitis due to triethanolamine contained in an ultrasound gel. We advocate

labelling medical devices, including ultrasound gel, with their complete qualitative composition, as is the case for all cosmetic products.

CONFLICT OF INTERESTS

None to declare.

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A child polysensitized to all constituents of Biseptine

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Contact allergy to Biseptine (Bayer Healthcare, Gaillard, France) is well described among adults and more recently in children.^{1,2} Biseptine is the most commonly used antiseptic in France and is a combination of 0.25% chlorhexidine digluconate (CH): CAS no. 18472-51-0, 0.025% benzalkonium chloride (BC): CAS no. 63449-41-2, and 4% benzyl alcohol (BA): CAS no. 100-51-6. The

allergen most frequently incriminated is chlorhexidine, followed by benzalkonium chloride and, more rarely, benzyl alcohol. Usually children are sensitized to only one component of the antiseptic, but a few children may be sensitized to two of the three components.² We report the first case, to our knowledge, of a young child sensitized to all three components of Biseptine.

1 | CASE REPORT

A 6-year-old boy, with no personal or family history of atopy or allergy, developed an acute episode of ear eczema, with secondary spreading to the neck and chest. Based on the history obtained from his parents, we noted the application of several topical treatments, including Biseptine, to address a small posttraumatic wound of the ear. The boy was tested with the European baseline series adapted for children³ (Chemotechnique Diagnostics, Vellinge, Sweden), with his hygiene and cosmetics products, and with all topical drugs applied to the wound, including Biseptine and its three components: chlorhexidine digluconate 0.5% aq., benzalkonium chloride 0.1% aq., and benzyl alcohol 10% softisan, provided by chemotechnique diagnostics. Readings were performed on day (D) 2 and D3 according to the ESCD guideline.³ Strong positive reactions on D2 (++) and D3 (++) were seen for Biseptine and, notably, for all three of its constituents: CH++, BC++, and BA++ without any other positive test reactions (Figure 1).

2 | DISCUSSION

Contact allergy to topical antiseptics is mainly described in adults but has also been reported recently in children, highlighting the young age

of patients, misdiagnosis, and/or delay in diagnosis.^{1,2,4} In this recently reported series, chlorhexidine and benzalkonium chloride were the most commonly reported allergens in young patients.² A few children were positive to both CH and BC. We had not yet observed a child with polysensitization to all three constituents of Biseptine and, to our knowledge, this has never been reported. The origin of this intriguing early sensitization has been discussed previously and seems to be connected to antiseptic use (mainly Biseptine) during maternity care of the umbilical cord.^{1,2} This polysensitization is not without any consequence since it constraints antiseptic use especially for their general use and for surgical site. In addition, these three components are also wellknown preservatives in drugs and cosmetics and thus limit their prescription.⁵

In conclusion, contact allergy to antiseptics remains a current and rising problem, especially in pediatric populations. Our case points to the possible emergence of allergy to all three constituents of Biseptine, which may also be found in other topical treatments. Moreover, there is a need to limit recurring and unjustified exposure to antiseptics.

CONFLICTS OF INTEREST

The authors declare no potential conflict of interests.

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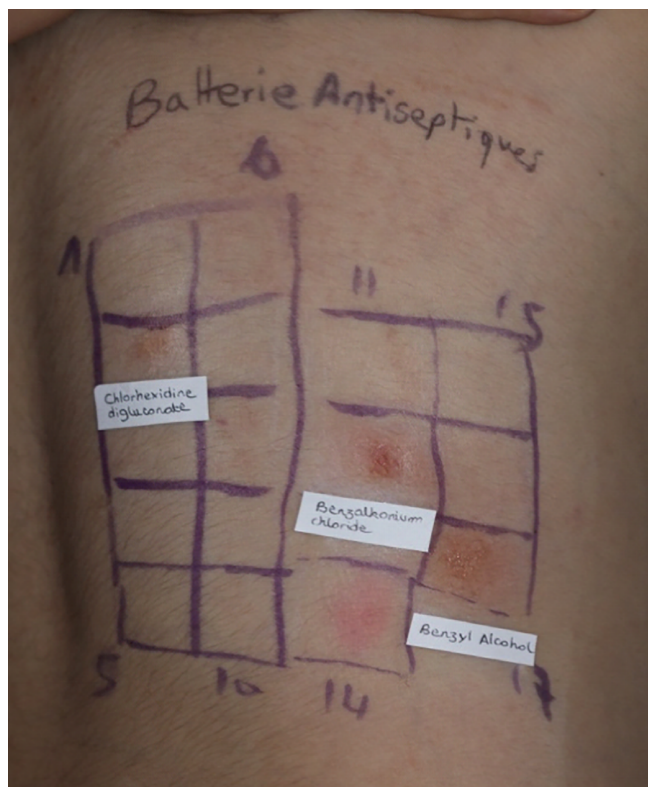


FIGURE 1 Antiseptics series patch tests showing positive reactions to all three constituents of Biseptine

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