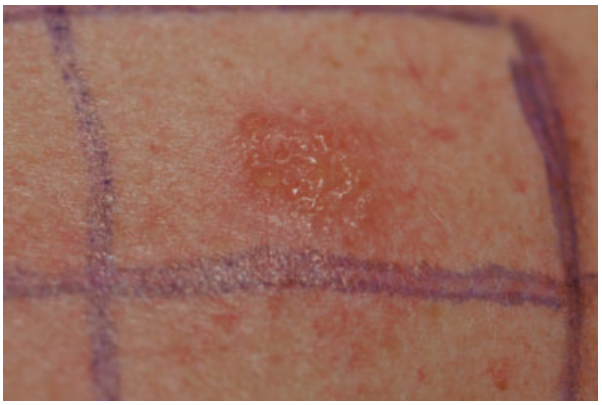

Fig. 1. Patch test with lidocaine 1% pet, D3 + + +.

Key words: allergic contact dermatitis; bullous reaction; lidocaine; local anaesthetics; type IV allergy.

Bullous allergic contact dermatitis to lidocaine

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Adverse reactions to lidocaine are uncommon and allergy is rare (1). An immediate type reaction to lidocaine is seen more often than a type IV allergy (2, 3).

Case Report

A 54-year-old woman developed a severe perianal eczematous reaction a few days after applying a lidocaine cream for haemorrhoids. She had used this cream approximately once a year, without any problem. The general practitioner prescribed TriAnal® (Will-Pharma BV, Zwanenburg, The Netherlands) to treat the perianal dermatitis. This worsened the dermatitis with bullae, swelling, erosions, and extending it to the genital region. An internal cause was suspected and the patient was referred to a proctologist after the dermatitis resolved. She was examined twice, using Urogliss® (Montavit Pharma, Almelo, The Netherlands) as a lubricant, and after 2 days she developed redness, itching, and blisters.

The patient was patch tested with the European baseline series (TRUE™ test, Mekos, Hillerød, Denmark) and a local anaesthetics series (Allergen bank, VU University Medical Centre, Amsterdam, The Netherlands) in Vander-Bend® square chambers (Brielle, The Netherlands) on Fixomull® stretch (BSN, Almere, The Netherlands), with 2D occlusion. Tests were read according to the guidelines of the International Contact Dermatitis Research Group (ICDRG) on D3 and D7 (Table 1). The only positive reactions were to lidocaine 1% (D3 + + +, D7 + + +) (Fig. 1), bupivacaine 2% (D3 ++, D7 +), mepivacaine 2% (D3 ++, D7 ++), and prilocaine 5% (D3–, D7 +).

A provocation test with a 2-ml subcutaneous injection of lidocaine 2% showed erythema, swelling and vesicles after 5 days (Fig. 2).

Discussion

We present a patient with a bullous type IV allergy to lidocaine after

Table 1. Patch test results of the local anaesthetics series

Allergen	Concentration (%)	Vehicle	Day 3	Day 7
Benzocaine	5	Pet	–	–
Tetracaine hydrochloride	1	Pet	–	–
Procaine hydrochloride	1	Pet	–	–
Bupivacaine	2	Pet	++	+
Lidocaine	1	Pet	+ + +	+ + +
Prilocaine hydrochloride	5	Pet	–	+
Articaine	2	Aqua	–	–
Dibucaine	5	Pet	–	–
Mepivacaine	2	Aqua	++	++
Naropin	1	Aqua	–	–
Sodium metabisulfite	1	Pet	–	–
Triamcinolone acetonide	1	Alc	–	–

Pet, petrolatum; Alc, alcohol.

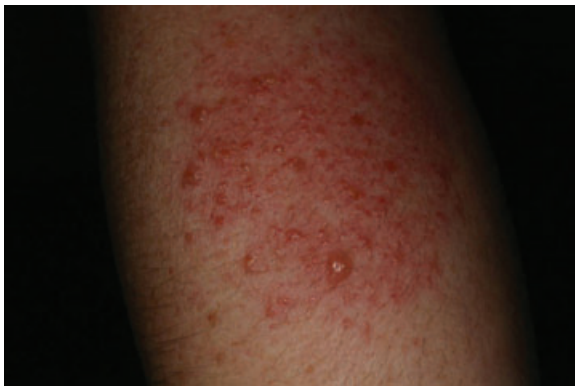

Fig. 2. Provocation test with subcutaneous injection of lidocaine 2% from an ampoule, D5 bullous reaction.

a lidocaine cream for haemorrhoids. In the literature, the use of anti-haemorrhoidal preparations is the most common sensitizer to lidocaine (1, 3). The increased over-the-counter sale of these preparations could account for the rise of the number of cases presenting with delayed-type IV allergy to lidocaine (2).

Previously, our patient had received injections of articaine from her dentist, without experiencing any problems. There was no further history of contact with local anaesthetics. The relapse and worsening of symptoms after sensitization can be explained by the use of TriAnal® and Urogliss®. TriAnal® is an anti-haemorrhoidal cream containing triamcinolone acetonide and lidocaine. Urogliss® is a lubricant containing lidocaine, which is used during proctological examinations.

In our patient, there is a cross-reactivity with bupivacaine, mepivacaine and prilocaine. Cross-reactivity with these amide-type anaesthetics has often been reported (2). As suspected, there was no cross-reactivity with an ester-type anaesthetic (1). We verified the positive patch test to lidocaine with intradermal testing and provided our patient with safe alternatives to use in the future. The first choice for any future local anaesthesia used by her dentist or other medical professionals is the ester-type anaesthetic procaine. If this is not available, articaine and naropin would also be safe alternatives for our patient.

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