

arterio-venous passage time is more suitable than vCDI. In summary, we cannot identify any difference to previous literature.

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Sir,  
**Contact urticaria to ultrasonic gel**  
Cases of allergic contact dermatitis (type 4 hypersensitivity) to ultrasonic gel have been reported before.<sup>1–3</sup> We report a case of contact urticaria (type 1 hypersensitivity) to ultrasonic gel.

#### Case report

A 9-year-old girl presented with 4 months' history of visual disturbances consisting of lines and flashes. There was no relevant drug history or personal history of atopy. Her father had allergic rhinitis.

Her visual acuity was 6/6 bilaterally. Anterior segments were normal. The optic discs were slightly prominent and ultrasonography was attempted to confirm or exclude nerve-head drusen.

Five minutes after applying the ultrasonic gel, an itchy eruption developed on the site of application (Figure 1). Examination showed periorbital swelling with well-demarcated erythema, which settled within 2 h of removing the gel. This reaction is consistent with contact urticaria.

Chamber and open test to the gel (Henleys ultrasound gel) and its components—diazolydiny urea,



**Figure 1** Periorbital swelling with erythema.

triethanolamine, propylene glycol, and iodopropyl butylcarbamate—performed on the inner aspect of the arm/forearm were negative. She declined testing on the periorbital skin.

#### Comment

Contact urticaria can be classified into two groups: immunological and non-immunological.

Immunological urticaria (ICU) is an immediate type hypersensitivity. It is mediated by mast cells causing histamine release. Prior immune (IgE) sensitisation is required, making atopics more predisposed towards ICU. It may be associated with systemic and potentially life-threatening symptoms.<sup>4</sup>

Non-immunological urticaria (NICU) causes typically localised reactions, which resolve within ;hours. The mechanism is poorly understood although prostaglandin is thought to be the mediator in response to exposure. It occurs without prior sensitisation, and symptoms may vary according to the site of exposure, concentration, vehicle, mode of exposure, and the substance itself.<sup>5</sup>

We were unable to reproduce the reaction as the patient declined testing on the periorbital skin. However, with no previous history of sensitisation or atopy and a localised site reaction, we feel that she had NICU. While contact urticaria is a common phenomenon, this has never been reported with an ultrasonic gel, which is widely used. It can be very distressing to patients, and physicians should be made aware of this possibility since it may affect further medical management.

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