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Allergic contact dermatitis caused by ranitidine hydrochloride in a veterinary product

Rowena Meani and Rosemary Nixon

Occupational Dermatology Research and Education Centre, Skin and Cancer Foundation Inc., Carlton, Victoria 3053, Australia

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Allergic contact dermatitis caused by ranitidine is rare. Most cases of allergic contact dermatitis caused by ranitidine have been related to occupational exposure during the pharmaceutical manufacturing process (1–5). We report a case of allergic contact dermatitis caused by ranitidine hydrochloride (HCl) in a veterinary medicament. Interestingly, there have been two recent reports of allergic contact dermatitis caused by omeprazole in GastroGard® (6, 7), another medicament used to prevent gastric ulcers in racehorses, which are apparently quite common (8).

Case Report

A 57-year-old non-atopic racehorse trainer was referred with a 2.5-year history of dermatitis affecting his face, eyelids, and hands. He noticed that his dermatitis would worsen each springtime. Concern was raised about airborne contact dermatitis, but there was no obvious exposure to airborne allergens. He reported improvement following a short course of prednisolone. He mentioned relatively few materials and products with which he had skin contact, but administered Ulcerguard® paste (Ranvet®, Banksmeadow, NSW, Australia) to prevent gastric ulcers in racehorses during their intensive training period, which is scheduled during springtime in Australia. This contained 19% ranitidine HCl.

Patch testing was subsequently performed with the Australian baseline series (9) and the patient's own

sample of Ulcerguard® paste. Testing was performed with allergEAZE™ chambers on Scanpor® tape (Smart Practice®, Phoenix, AZ, USA), and allergens were obtained from allergEAZE™ (Smart Practice®) and Chemotechnique (Vellinge, Sweden), and applied to the patient's back for 48 hrs. A strongly positive (+++) reaction was observed on day (D)2 and D4 to an undiluted sample of Ulcerguard® paste. The trainer admitted to handling Ulcerguard® paste without gloves, syringing it into the racehorses' mouths, and commonly contaminating his skin. In addition, he rarely washed his hands following its use, and also recalled rubbing his eyes and touching his face when it was itchy. The patient was advised to avoid skin contact with Ulcerguard® paste, to wear gloves when handling the product, as recommended in the material safety data sheet, and to wash his hands after use. His dermatitis improved markedly after several weeks, and he was relieved to find that he was allergic to the Ulcerguard® paste, and not to his racehorses.

Ranitidine HCl was subsequently obtained for testing (Ranvet®; www.ranvet.com.au/), and patch testing was performed with concentrations of 10%, 5% and 1% in pet. Our patient developed +++, +++ and + reactions, respectively, to these concentrations. Patch testing gave negative results in 10 control subjects.

Discussion

Allergic contact dermatitis caused by ranitidine is rare, and has most commonly been reported as a result of occupational exposure during pharmaceutical manufacturing (1–5). However, occupational exposure has also been reported in nurses (10), and Gielen recently reported that ranitidine was the third most common contact allergen in healthcare after propacetamol HCl and penicillin (10). Two cases of allergic contact dermatitis occurred in the

Correspondence: Dr Rowena Meani, Occupational Dermatology Research and Education Centre, Skin and Cancer Foundation Inc., Level 1, 80 Drummond Street, Carlton, Victoria 3053, Australia, Tel: (03) 9623 9400. E-mail: rmeani@skincancer.asn.au

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setting of crushing ranitidine tablets for oral administration in family members. In another case, a widespread eczematous rash occurred following oral ingestion of ranitidine, and was associated with a positive patch test reaction (11, 12). The concentrations of ranitidine HCl tested varied from 30% to 1% ranitidine HCl in pet.; our results suggest that ranitidine HCl should be tested at 5% in pet.

Allergic contact dermatitis caused by ranitidine HCl in a veterinary medicament has not been previously reported. Direct skin contact with ranitidine should be avoided, and this is particularly important when it is used as a paste or tablets that are crushed. Labelling should include advice to wear gloves and wash hands following accidental exposure. Prevention of gastric ulcers in racehorses clearly involves some risks to the skin.

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