

adhesives containing Gantrez® 425 but not to a stoma adhesive containing the chemically similar Gantrez® 335.

Case Report

A 71-year-old male had an ileostomy in 2007 following colectomy for ulcerative colitis. Six months later, he developed peristomal erythema, pruritus, and scale around the stoma. A number of different bags were tried with no benefit. The rash responded to a regime of Dermovate® cream applied for 30 min to the peristomal area and then removed; however, the rash relapsed each time treatment was stopped. While awaiting patch testing, the patient changed his stoma adhesive. His rash relapsed when using Stomahesive® (ConvaTec Ltd.), Adapt® (Hollister Ltd.), Dansac® soft paste (Dansac Ltd.) but did not relapse when using Karaya® paste (Hollister Ltd.).

Patch testing was performed using Finn chambers® on Scanpor® tape which were removed on D2 and reactions read at D4. Reactions were graded using International Contact Dermatitis Research group (ICDRG) scoring system. Patch testing included British Contact Dermatitis baseline series, plastics and glues, bases and preservatives series, an adhesive piece of his stoma bag, stoma wafer, 3M™ Micropore™ surgical tape, and all four adhesives listed above applied neat. There were 2+ reactions to Stomahesive®, Adapt®, and Dansac® pastes. He was otherwise patch test negative, including, to Karaya® paste at D4.

After contacting the manufacturers, he was patch tested to Gantrez® 425, a confirmed component of Stomahesive®, Adapt® and Dansac®, and Gantrez 335 a confirmed component of Karaya® paste at 10%, 50% and 100% concentrations in petrolatum. There was a 2+ reaction to Gantrez® 425 at 100% concentration only and negative to all concentrations of Gantrez® 335 at D4. Ten controls were negative to both Gantrez® 425 and Gantrez® 335.

Gantrez® is a polymer with a significant ability to adhere to wet or moist areas (1). Gantrez® 425 (butyl ester of copolymer PVM/MA) is a copolymer consisting of a partial butyl ester of the polycarboxylic resin formed from vinyl methyl ether and maleic anhydride. Gantrez® 335 is also a partial

Peristomal allergic contact dermatitis to stoma-adhesive paste containing Monobutyl ester/maleic acid of Polymethylvinylether (Gantrez® 425) but not to Isopropyl ester/maleic anhydride of Polymethylvinylether (Gantrez® 335)

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Sinead Field, Carmel O'Sullivan, Michelle Murphy and John F Bourke

Dermatology Department, South Infirmary-Victoria University Hospital, Cork, Ireland

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Gantrez® (International Specialty Chemical Inc.) is a polymer that acts as a binder in adhesives including dental, stoma adhesives, and personal care products. We report a case of allergic contact dermatitis to multiple stoma

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ester with the same resin PVM/MA but is esterified with isopropyl alcohol.

Gantrez® 425 functions as a binder, film former or hair fixative and is present in hair sprays, tonics, dressings, and other hair grooming products and is also in mucosal adhesive resins for toothpaste, mouthwash, denture adhesive preparations, and stoma pastes. Gantrez® 325 also functions as a binder, emulsion stabilizer, film former, hair fixative, and suspending agent(1).

Allergic contact dermatitis to Gantrez® and to Stomahesive paste has been reported previously (2–4). Scalf et al. reported a positive patch test to Gantrez® 425, their patient's dermatitis responded to the use of Gantrez®-free adhesive (3). Gallo reported a case of allergy to Stomahesive® but negative patch test to Gantrez® 425. They were unable to test other components as the manufacturer did not supply them (4). Heskell reported a female with peristomal allergic contact dermatitis to stomadhesive paste (Squibb Company 1987 which is the same product as Stomahesive® now manufactured by ConvaTec Ltd.) and stomadhesive wafer with positive patch tests to Gantrez® 425, 225 and negative patch tests to Gantrez® AN products. Heskell also contacted a manufacturer and supplier of Gantrez® who reported only three irritant reactions in 700 patch tests on 150 volunteers (incidence of 0.21%) in predictive patch testing and no allergic contact dermatitis occurred upon rechallenge (2). Heskell's report did not specify which Gantrez® (or specific Gantrez® polymer) was tested on each volunteer.

Peristomal dermatitis frequently affects patients with stomas, particularly ileostomy and urostomy stomas. Irritant contact dermatitis is common in these patients, however, allergic contact dermatitis is infrequent (5). Patch testing is important to rule out a confounding allergic contact dermatitis.

Conclusion

This case is important as it demonstrates a lack of cross reactivity between different Gantrez® entities despite very similar chemical structure. Patients allergic to Gantrez® 425 may try adhesives containing Gantrez 335®.

References

1. *International Cosmetic Ingredient Dictionary and Handbook*. Volume, 8th edition 2000 ISBN 1-882621-22-0 (3-volume set). Publisher: Cosmetic Toiletry and Fragrance Association U.S.
2. Heskell N S. Allergic contact dermatitis from Stomadhesive paste. *Contact Dermatitis* 1987; 16: 119–121.
3. Scalf L A, Fowler J F Jr. Peristomal allergic contact dermatitis due to Gantrez® in Stomahesive® paste. *J Am Acad Dermatol* 2000; 42: 355–356.
4. Gallo R, Ciambellotti A, Cozzani E, Parodi A. Peristomal allergic contact dermatitis caused by Stomahesive paste: an additional case. *J Am Acad Dermatol*. 2002; 47: 633.
5. Lyon C C, Smith A J, Griffiths C E M, Beck M H. The spectrum of skin disease in abdominal stomal patients. *Br J Dermatol* 2000; 143: 1248–1260.

Address:

Dr Sinead Field
Dermatology Department
South Infirmary-Victoria University
Hospital
Cork
Ireland
Tel: +353-21-4926330
Fax: +353-21-4926405
e-mail: sineadfield@hotmail.com