

Allergic contact dermatitis to retapamulin ointment

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Retapamulin is the first tricyclic pleuromutilin topical antibacterial agent both available in the European Union (EU) and the United States (US). It was initially approved in the US in 2007 (1). It is approved for the treatment of impetigo caused by methicillin sensitive *Staphylococcus aureus* or *Streptococcus pyogenes* in the US as well as secondarily infected traumatic lesions in the EU. Clearance rates are >99%. The mechanism of action is primarily through binding of the bacterial 50S ribosome, preventing replication (bacteriostatic) (2). In clinical trials, side effects seen with topical treatment included nausea, site irritation, and pruritus and diarrhea, all seen in <2% of treated adult and paediatric patients (2). A PubMed search reveals no currently published cases of allergic contact dermatitis to retapamulin (3). 'Contact dermatitis' was reported in clinical trials in the US at <1% with no further explanation (1). The EU version of the

patients information leaflet for retapamulin does warn for 'contact dermatitis' in their package insert; the antioxidant butylated hydroxytoluene (BHT) is present in the formulation available in Europe (4).

Case Report

A 79-year-old atopic male was evaluated for two episodes of dermatitis following use of topical antibiotics. The first episode occurred after using topical bacitracin on a scrape 4 years prior to presentation. He was treated with liquid nitrogen therapy for actinic keratoses on his face 12 weeks prior to evaluation and, approximately 1 week following treatment, he was given a prescription for retapamulin (Altabax®) 1% ointment for daily application on treatment sites that were not healing; 8 weeks prior to presentation, he noticed pruritus and dermatitis surrounding the sites to which he was applying Altabax® 1% ointment. He used no other topical products on the affected facial skin.

On examination by his primary dermatologist approximately 7 weeks prior to patch testing, he had several dermatitic plaques, each about 1 cm, on his forehead. These cleared with 7 days treatment with fluocinonide 1% cream twice daily. Allergic contact dermatitis suspected and he was referred for patch testing. On the day of testing, his facial skin was clear of dermatitis.

The patient was patch tested to the Chemotechnique North American Baseline (Chemotechnique Diagnostics®, Vellinge, Sweden) and Medicament Series (5) as well as supplemental non-standard allergens including BHT (butylated hydroxyanisole; 2,6-di-tert-butyl-4-cresol) and Altabax® [retapamulin 1% ointment (Glaxo-SmithKline, Research Triangle, NC USA)] 'as is', using IQ Chambers® (Chemotechnique Diagnostics®, Vellinge, Sweden). Allergens were removed after 2D occlusion and readings were performed at D2 and D4. Positive past relevant reactions included bacitracin (++) , neomycin (++) and the only relevant reaction to his current episode of dermatitis was retapamulin (Altabax®) 1% ointment (++) . Specifically, BHT was negative at both readings.

According to the manufacturer, the US version of retapamulin 1% ointment (Altabax®), contains only retapamulin and white petrolatum (1). In Europe, retapamulin ointment, known as Altargo® (Glaxo Wellcome, Middlesex, UK), also has BHT as an added ingredient (4). After testing, it seems probable that the patient's facial dermatitis was caused by contact allergy to retapamulin as Altabax® used for testing contains only retapamulin and petrolatum. The patient avoided all topical antibiotic preparations following testing and remained completely clear of dermatitis for 8 months.

In clinical trials, 'contact dermatitis' was occasionally noted and was felt to be from BHT but it seems that at least a minority of individuals may become sensitized to retapamulin itself. While it is too early to predict the importance of this allergen, awareness for retapamulin to cause potentially relevant allergic contact dermatitis is necessary.

References

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