

Anogenital allergic contact dermatitis caused by methylchloroisothiazolinone, methylisothiazolinone and topical clotrimazole with subsequent generalized exanthem triggered by oral fluconazole

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doi:10.1111/cod.12513

Key words: allergic contact dermatitis; case report; clotrimazole; cross-reactions; fluconazole; methylchloroisothiazolinone; methylisothiazolinone; patch test.

Contact allergy to imidazole antimycotics is rare, considering their widespread use. Various imidazoles have been reported to cause contact allergy, and some show cross-reactivity with each other.

Case Report

A 44-year-old atopic woman presented to her general practitioner (GP) with a 1-month history of anogenital itch. Her GP diagnosed thrush from her history, and

prescribed Canesten® (clotrimazole 1%) cream. She had used this successfully in the past. However, after she had applied it on and off for 2 months, her itch deteriorated, and she developed erythema in her groins. She returned to her GP, who then prescribed fluconazole (150-mg single dose) and flucloxacillin orally, which resulted in a widespread exanthema 48 h later, leading to hospital admission (Fig. 1) and a 3-week course of decreasing doses of oral prednisolone. She had no previous history of penicillin allergy, and has taken oral flucloxacillin subsequently with no problem. She was patch tested with Finn Chambers® on Scanpor® tape, and readings were performed on day (D) 2 and D4. Patch testing with an extended European baseline series, a medicament series, a corticosteroid series and her own products tested 'as is' showed positive reactions to

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Conflict of interest: The authors declare no conflict of interests.



Fig. 1. Widespread maculopapular rash secondary to fluconazole use.

clotrimazole 5%, methylisothiazolinone (MI) 0.05% aq., methylchloroisothiazolinone (MCI)/MI 3:1 0.01% aq., and her Huggies® baby wipes. These readings were positive already at D2. The patient had negative reactions to econazole and miconazole. We did not test with fluconazole. The patient admitted to regularly using baby wipes on her anogenital skin before the start of the problem.

Discussion

Topical antifungals are available over the counter, and are commonly used for the treatment of genital itch, which

is often presumed to be attributable to fungal infections such as those caused by *Candida* and dermatophytes. In a review of 79 patients with anogenital dermatoses and positive patch test reactions, only 5 patients had contact allergies to antifungals (1). Contact allergies to imidazole antimycotics are comparatively rare, considering their widespread use. Imidazoles can be divided into phenethyl imidazoles (ketoconazole, miconazole, tioconazole, isoconazole, enilconazole, econazole, sulconazole, sertaconazole, and oxiconazole) and phenmethyl imidazoles (clotrimazole, croconazole, and bifonazole) (2). Fluconazole is a triazole antifungal. A literature review by Dooms-Goossens et al. comparing contact allergies to 11 different imidazoles showed contact allergy to clotrimazole to be rare as compared with some of the other imidazoles, such as miconazole. Cross-reactivity between clotrimazole and other imidazoles is uncommonly reported, and clotrimazole is considered to be a safe therapeutic alternative in patients who are sensitive to phenylethyl imidazoles (3). Oral antifungals can cause hypersensitivity reactions. However, there are no reports in the literature to suggest the occurrence of systemic allergic contact dermatitis caused by oral antifungal agents following contact sensitization from topical imidazoles. We postulate that, initially, the use of baby wipes containing MCI and MI triggered the patient's anogenital allergic dermatitis, which was then misdiagnosed as thrush. Her subsequent prolonged use of topical Canesten® presumably induced contact allergy to clotrimazole. The severe systemic reaction when she was given fluconazole orally might possibly represent systemic allergic dermatitis caused by the 'azole' antifungal.

References

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