

Allergic Dermatitis to Methylchloroisothiazolinone/Methylisothiazolinone Masquerading as Pinworm Infection

Jodie Raffi, BA,* Lola Adekunle, MD,†
and Roxanne Abitbol, MD‡

PRECIS

Perianal pruritus without clinically apparent dermatitis is a less common presentation of allergic contact dermatitis to methylchloroisothiazolinone/methylisothiazolinone (MCI/MI) and can be overlooked, subsequently delaying diagnosis and clinical improvement.

CASE REPORT AND DISCUSSION

A 5-year-old boy was brought to a clinic for persistent perianal pruritus and pain for 2 years. Affected areas also included the buttocks and posterior thighs. His symptoms were severe enough to interfere with school attendance, and underlying behavioral pathology was considered. Before presentation, the patient had been treated empirically for pinworm with mebendazole by a gastroenterologist and triamcinolone 0.1% at an initial dermatological consultation with no improvement. Physical examination was unremarkable except for excoriations on the buttocks, posterior thighs, and perianal area.

The patient's mother was advised to discontinue the use of baby wipes and was prescribed triamcinolone 0.1% ointment, hydrocortisone 0.5%-iodochlorhydroxyquin 3% cream as needed for pruritus, and cetirizine once daily. Patch testing with North American Standard Series-80 (Chemotechnique Diagnostics, Vellinge, Sweden) revealed a 2+/2+ reaction (2/6 day reads, respectively) to MI and 2+/2+ to MCI + MI/Kathon CG (Fig. 1).

Methylchloroisothiazolinone + MI was found in several of the patients' products, including wet wipes, liquid hand soap, body wash, shampoo, and detergent. With avoidance counseling, improvement in pain and pruritus was seen as early as 10 days after patch testing; after 1 month, the pain resolved, and pruritus has reduced dramatically, although it has not ceased entirely. The patient

appears significantly less distressed, attends school, and participates in social activities without issue.

Pruritus ani is a distressing manifestation of numerous medical conditions, both dermatologic and extracutaneous, the latter of which can include infectious, colorectal, and metabolic causes.¹ Dermatitis is the most common dermatologic condition affecting the perianal area, although several other primary cutaneous disorders are known to cause perianal disease and pruritus.^{1,2}

The role of allergic contact dermatitis (ACD) as a common cause of pruritus ani and perianal disease has been supported by a number of studies.^{2,3} In a prospective study evaluating 124 adults with perianal dermatitis, Agulló-Pérez et al² identified ACD as the most common dermatologic diagnosis and MCI/MI (or either component) as the most common relevant allergen. Warshaw et al³ analyzed patients with anogenital dermatitis patch tested between 1994 and 2004 and found sensitization to fragrances, particularly balsam of Peru and fragrance mix, statistically more prevalent in patients with anogenital involvement. Relevant preservative allergens included quaternium-15, parabens mix, and MCI/MI.³



Figure 1. Day 6 patch test findings to MI demonstrating erythema, induration, and significant pruritus.

From the *University of California, Irvine, School of Medicine; †Department of Dermatology, Stanford University, Palo Alto, CA; and ‡Levittown, New York, NY. Address reprint requests to Jodie Raffi, BA, Department of Dermatology, University of California, San Francisco, Mt Zion Medical Center, 1701 Divisadero St, San Francisco, CA 94115. E-mail: jodieraffi@gmail.com.

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MCI and MI are preservatives found in a variety of cosmetic and personal care products, including shampoos, conditioners, body wash, hand soaps, and wipes. The incidence of ACD to MCI/MI has risen dramatically since 2005 because of increased concentrations used in personal care products.⁴ Although MCI/MI most commonly causes hand dermatitis,⁵ MCI/MI (or either component) has emerged as one of the most common allergens implicated in perianal ACD.² Despite the finding that use of MCI, MI, or both in wipes is less prevalent than previously thought, these allergens are strong sensitizers and remain a common source of sensitization in individuals using the wipes.^{4,5} The prevalence of MCI/MI sensitization in anogenital ACD as well as the sensitization risk from wet wipes, let alone other hygiene products, makes these allergens important to consider in the pediatric population presenting with pruritus ani and/or possible ACD.

CONCLUSIONS

Allergic contact dermatitis to MCI/MI can cause persistent perianal pruritus without clinically apparent dermatitis; this may masquerade

as an infectious condition and requires diagnostic vigilance by providers.

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