

Methylisothiazolinone, polymicrobial infections, and an SDRIFE-like eruption

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A 52-year-old woman presented with a rash that initially involved her perianal skin and progressed to involve her axillae, inguinal folds, and perineum. Her perineal and perianal skin became eroded and weepy, with adherent crusts that made separating the skin painful and routine hygiene difficult. Previous workup included positive cultures for Group B Strep and *Candida albicans* and positive ANA at 1:80 titer. Previous treatments included oral ciprofloxacin and cephalixin; topical ketoconazole and oral fluconazole; and topical and oral steroids. Prednisone improved her symptoms, though they did not completely respond. Examination revealed an obese patient with erythematous, scaly plaques covering her axillae, including the axillary vault. Edematous, pink plaques with desquamative sheets and well circumscribed erosions covered her inguinal folds, perianal, and perineal skin, with mucopurulent discharge accumulating near her vulva. Additionally, small erythematous papules with fine scale were accentuated in flexural surfaces of her upper and lower extremities. Punch biopsies from the perineum and the axillae revealed diffuse parakeratosis overlying an acanthotic and moderately spongiotic epidermis and a brisk superficial perivascular inflammatory infiltrate comprised of lymphocytes, histiocytes and numerous eosinophils. Bacterial, fungal, and viral cultures revealed Group B Strep; *Klebsiella pneumoniae*; *Candida glabrata*, resistant to fluconazole; and herpes simplex virus. Patch testing revealed 3+ reaction to methylisothiazolinone and 1+ reaction to methylisothiazolinone-methylchloroisothiazolinone mixture. She had used several brands of wet wipes which both contained the relevant allergens. She was treated with trimethoprim-sulfamethoxazole, valacyclovir, and voriconazole. With topical steroids and strict avoidance of offending allergens, her rash resolved within two weeks. Symmetric drug-related intertriginous and flexural exanthem (SDRIFE, formerly known as the "baboon syndrome") is a manifestation of systemic contact dermatitis that results in flexural exanthema. This case is a unique presentation of allergic contact dermatitis to the preservative methylisothiazolinone resulting in an SDRIFE-like eruption. Compromised skin barrier allowed polymicrobial infection, including a *Candida* isolate resistant to most antifungal agents. Thorough evaluation is needed to optimally diagnose and treat patients with flexural and genital exanthema.

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Pyoderma gangrenosum triggered by a pathergic and allergic response to red tattoo dye

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A 39-year-old female with Crohn's disease presented with an itchy reaction on her left leg two weeks after receiving a tattoo. An allergic contact dermatitis (ACD) was diagnosed and the patient was treated with a topical steroid cream. Approximately three weeks later she returned to our clinic with an exquisitely painful ulcer restricted to the red portion of her tattoo. Fungal and bacterial cultures were taken to exclude infection. Because the ulceration respected the borders of the red dye, infection and pathergy due to mechanical trauma were excluded. A working diagnosis of pyoderma gangrenosum (PG) triggered by a pathergy reaction to ACD was established. The patient was started on 1 mg/kg of prednisone along with topical wound care and gradually healed over 4 weeks. The red dye was found to contain naphthol red, which is a known sensitizer in red-colored tattoos and permanent make up. Considering the risk of triggering another PG or tattooing normal skin in this patient, intradermal testing with the red dye was not performed. PG is an exquisitely painful ulcerative neutrophilic dermatosis seen in 1-5% of inflammatory bowel disease (IBD) patients. The pathogenesis of PG remains poorly understood, but it is best thought of as an autoimmune process characterized by a sterile neutrophilic infiltrate. While some cases of PG are idiopathic, most often PG is associated with systemic diseases including IBD, arthritis or malignancy. In IBD patients a flare of PG can be a harbinger for an exacerbation of their disease. Characteristically it appears on the lower limbs and is triggered by a pathergic response to trauma. The diagnosis of PG is based on the clinical setting, patient's history and physical features of the ulcer. Diagnostic features include disproportionate pain, rapid ulcer extension, and presence of a dusky blue or gunmetal-colored undermined border. This dermatosis often responds well to immunosuppressive therapies with prednisone and/or cyclosporine, but may take weeks to heal. Pathergy can occur in a number of neutrophilic dermatoses including Behçet syndrome and PG. While often pathergy develops secondary to trauma, it can rarely be seen after an allergic reaction. IBD patients or those with history of PG or Behçet should be cautioned to avoid activities or procedures that may trigger a pathergic response.

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WITHDRAWN

Retrospective review of the trends and allergens in the patch test standard series in Singapore

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Introduction: The objective of this study is to analyze retrospectively the frequency distribution of contact allergens as well as identify any temporal trends in the prevalence of contact dermatitis.

Methods: Patch test results were reviewed for all patients who attended the contact dermatitis clinic at National Skin Center, Singapore, over a 5-year period from Jan 2004 to Dec 2008.

Results: A total of 3277 patients were patch tested for which 1639 (50.0%) had a reaction to one or more allergens. The prevalence of contact dermatitis follows a normal distribution with most of the patients in the 21 to 60 years age group. The top 10 allergens in order of frequency were nickel (20.5%), fragrance mix (7.0%), potassium dichromate (6.3%), 4-phenylenediamine (6.1%), balsam of Peru (5.6%), colophony (5.0%), neomycin (3.1%), parabens (2.2%), thiuram mix (2.2%), and flavine (1.8%).

Conclusion: Compared to previous epidemiologic data, the proportion of nickel, fragrance mix and colophony allergy remained constant. On the other hand, the proportion of potassium dichromate, 4-phenylenediamine, and balsam of Peru allergy increased while the proportion of neomycin and flavine allergy decreased. Changes in epidemiology of contact allergens could reflect the varying occupational landscape and lifestyle of Singaporeans.

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