



A private case of allergic contact dermatitis

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Patch testing is considered the gold standard in the diagnosis of allergic contact dermatitis. A patient presenting with a pruritic rash and previous failed treatments should be considered as a candidate for patch testing. In this case study, a patient with pruritus, dermatitis, and pain to her vaginal area and buttocks is patch tested and tests positive to two common contact allergens, fragrance mix and tixocortol-21-pivalate, both of which are clinically relevant in this patient's particular case. A follow-up of appropriate resources and education, as well as avoidance of the offending allergens, resulted in resolution of the patient's contact dermatitis.

■ Case presentation

A 44-year-old woman is referred to a patch testing clinic by her dermatologist for consultation of a 2-month history of severe dermatitis to her buttocks and vaginal area, which presented as extreme pruritus, peeling, and significant pain and erythema. This was also associated with welts, papules, and vesicles. The patient had no internal symptoms. The pain was so debilitating that she had difficulty sitting or having clothing touch these areas. The patient referred to her dermatitis as having the

appearance of being burned and significant erythema. She did not experience any discharge or foul odor.

The patient reports having three episodes of dermatitis since her symptoms began, each cycle lasting for approximately 10 days with a 2-week period of recovery in between. During each flare, she experienced severe pruritus, pain, and discomfort. At the time of consultation, she was experiencing a remission in symptoms

positive dermatological family history.

■ Management and outcome

The patient had been treated for herpes simplex virus by her gynecologist, despite testing negative to it. Pelvic exam and lab workup were also negative. She was additionally treated with an antifungal agent and topical and oral steroids, with only minimal improvement in symptom severity, if at all. A biopsy of

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and did not have any current dermatitis. The only other episode of dermatitis she had experienced was around the time her symptoms began, when both of her ears became intensely pruritic and erythematous to the point that she could not sleep.

She was seen in the ED and prescribed oral steroids. Her ear dermatitis later progressed to scaling and flaking, before eventually resolving. She had not experienced symptoms to any other parts of her body. The patient was unable to identify any patterns or triggers surrounding her flares. Family medical history includes her father who has eczema and rosacea but no other

the symptomatic area indicated an unspecified contact allergy.

In an effort to find a solution, the patient had changed toilet paper brands and started using cloth diapers instead of toilet paper and changed clothing fabrics. She primarily used fragrance-free detergent, and most of her personal products were fragrance free, but she continued to experience symptoms.

Patch testing is considered the gold standard in the diagnosis of allergic contact dermatitis. Patch testing involves the application of various allergens to the back, which are removed at 48 hours. The patient is evaluated at typically 48 and 96 hours for a

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positive response, which would be indicative of a Type IV delayed hypersensitivity contact dermatitis allergy. The patient may need to return for delayed reads if he or she is being tested to know

this may serve to provide some immediate relief to the patient, it does not identify the root cause of the patient's dermatitis; furthermore, if the patient is allergic to a corticosteroid that

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late reactors, such as a metal series.

"Tixocortol-21-pivalate is an anti-inflammatory topical corticosteroid...it is also the principle screening substance for contact allergies to class A steroids."¹ The patient in this case study was subsequently scheduled for patch testing and tested positive to fragrance mix and tixocortol-21-pivalate, a common ingredient found in steroid medications, including tablet, topical, inhalant, and other forms.

Discussion

Appropriate first steps may include a biopsy of the dermatitis, as well as a potassium hydroxide sample, if applicable, to investigate other differential diagnoses, such as fungal infections, psoriasis, or other dermatological processes. Some other interventions employed by providers may include a trial and error of product elimination, which can be time consuming and is often ineffective, as many of the same ingredients are present in multiple brands of products.

Another commonly used treatment is palliation of symptoms by prescribing steroids or immunosuppressants. Although

has been prescribed, this will only serve to create further complications and likely an exacerbation of symptoms. Although patch testing is frequently not done in traditional clinical settings as a first-line therapy, it should be of consideration for referral to a patch testing center.

The patient in this study was advised to alert her healthcare providers and pharmacist of her tixocortol-21-pivalate allergy. Tixocortol-21-pivalate is the most common steroid allergen (68%).² This patient was applying topical steroids to the dermatitis on her buttocks/vaginal area, to which she was allergic. At the time of her results, it had been approximately 3 weeks since the patient had used steroids and also 3 weeks since she experienced her last flare.

The patient's dermatitis to her genital area was likely initially exacerbated by her taking oral steroids for dermatitis to her ears, shortly before she experienced dermatitis to her genital area and buttocks. The patient had also used a scented personal lubricant during this time, which exposed her genital area to fragrance and was likely further compounded by the use of scented panty liners and tampons.

Recommendations included continuing the use of her fragrance-free laundry detergent and avoiding all other fragrances, including masking fragrances, which are present in numerous products. The patient was given resources to avoid her allergens and was given full resources for a comprehensive list of approved options that were safe for use, based on her allergies. Complete elimination of her allergens resulted in a resolution of her symptoms. This case highlights the importance of a thorough history and consideration of the gold standard of patch testing to rule out or diagnose a potential allergic contact dermatitis. **NP**

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ERRATUM

The June 2017 issue of *The Nurse Practitioner* published an incorrect version of a table in the article, Bittle P. The use of dipeptidyl peptidase-4 inhibitors in patients with type 2 diabetes and chronic kidney disease. *Nurse Pract.* 2017; 42(6): 31-38, in which some author corrections were overlooked. The table has been replaced and all author corrections incorporated into the article, which can be found at http://journals.lww.com/tnpj/Fulltext/2017/06000/The_use_of_dipeptidyl_peptidase_4_inhibitors_in.8.aspx.