P1401

Lanolin allergy: A 500 patient patch test assessment of six pharmaceutical grade lanolins

Joseph F. Fowler, MD, Dermatology Specialists, Louisville, KY, United States; Jennifer H. Perryman, MD, Dermatology Specialists, Louisville, KY, United States; Lynn M. Fowler, RN, Dermatology Specialists, Louisville, KY, United States; Nigel Langley, PhD, MBA, Croda Inc, Edison, NJ, United States

Background: Although there have been numerous patch test studies performed on lanolin since the 1950s, the prevalence of allergy to lanolin remains controversial; perhaps in part because of the heterogeneity of substances making up lanolin and probably more importantly to the level of purification performed. Lanolin is the purified waxy material that is secreted by the sebaceous glands of the sheep. It is a highly complex mixture of wax esters, comprised of sterol, aliphatic, and branched chain compounds.

Objective: This study was conducted to help determine the prevalence of positive patch test reactions to six pharmaceutical grade lanolins (USP, USP modified, PhEur compliant; differing only in the degree of purification) as compared to lanolin alcohols (30% wt/wt in mineral oil; standard material in allergen patch tests).

Methods: Five hundred consecutive patients were tested to lanolin alcohols and six pharmaceutical grade lanolins as part of diagnostic patch testing. Patches were applied with Finn chambers for about 48 hours, with readings performed at 48 hours after patch removal. Grading was according to the NACDG scale of 0 (no reaction) to 3 (strong reaction).

Results: A positive patch test rate of <0.1% was observed for all of the six pharmaceutical grade lanolins, whereas a greater proportion of the patients showed some level of reactivity to 30% wt/wt lanolin alcohols in mineral oil. Irritant patch test reactions were not uncommon with the lanolin alcohol.

Conclusion: The prevalence of patch test reactions to the six pharmaceutical grade lanolins was very rare. The relevance of the reactions to lanolin alcohols needs further assessment.

Commercial support: 50% sponsored by Croda Inc.

P1402

Efficacy of chlorohexidine cream shampoo in the control of dandruff: A randomized control double-blind trial

Gabriel J. Martinez-Diaz, Stanford, CA, United States; Howard Maibach, MD, San Francisco, CA, United States; Sarath Raju, MPH, San Francisco, CA, United States

Background: Dandruff remains a prevalent chronic scalp conditions affecting a large number of the world's population, regardless of age, gender, and/or ethnic background. Given its long-term nature, effective pharmacologic treatments in the form of medically active shampoos have predominated the treatment methods.

Objective: The aim is to establish the clinical effectiveness of a chloroxine cream shampoo for the treatment of dandruff in adult patients.

Methods: Double-blinded randomized groups of overall healthy adult males with dandruff were assigned to an experimental group (n = 12, chloroxine-based shampoo), and a placebo group (n = 12, cream-based shampoo). Evaluations of effectiveness of the treatments in eliminating dandruff were conducted at the beginning of treatment and at 2 and 4 weeks posttreatment using the adherent scalp flaking scale (ASFS). Statistical differences between the groups and different time points were tested using the Mann-Whitney-Wilcoxon test.

Results: The subjects receiving the chloroxine-based shampoo had an overall decrease in their ASFS grade of 1.40 ($P = .028$) on a 0 to 9 scale when compared to only a 0.20 placebo decrease of the ASFS grade. A significant difference was only observed between initial treatment and 4 weeks posttreatment.

Conclusion: A chloroxine-based shampoo was found clinically effective in the treatment of dandruff symptoms after 4 weeks of treatment, when compared to placebo.

Commercial support: None identified.

P1403

Contact dermatitis to vascular tape used for fluoroscopy: A case report

Dina Elrashidy, MD, Henry Ford Hospital, Detroit, MI, United States; Holly A. Kerr, MD, Henry Ford Hospital, Detroit, MI, United States

We report a case of a 59-year-old African American male with a history of peripheral vascular disease who was referred to dermatology for persistent cellulitis of his left lower extremity that did not respond to antibiotics. The physical examination revealed erythematous grouped papules coalescing into a thin plaque in a linear array on his left thigh and a linear scaly, erythematous patch, which was markedly squared off at its inferior end extending from his left knee to his lateral shin. About a week before the rash developed, the patient had a left SilverHawk atherectomy of his superior femoral, popliteal, and posterior tibial arteries. Vascular tape used for fluoroscopy was placed on his left lower extremity during this procedure. Histopathology showed subacute spongiotic dermatitis with eosinophils. The patient was treated with triamcinolone 0.1% ointment and his rash and pruritus improved. We preformed patch testing with the T.R.U.E. test and also patch tested him to various tapes, including the vascular tape used during his procedure. At his 48-hour and 1-week patch test readings, he had a 2+ and a 3+ reaction, respectively, to the vascular tape. Although this vascular tape is widely used in vascular procedures involving fluoroscopy or radiography, a review of the literature did not reveal any similar cases.

Commercial support: None identified.

P1404

Comparison of identical patch test allergens from different commercial sources in Brazil

Hermenio C Lima, RN, Universidade Federal do Parana, Curitiba, PR, Brazil; Giseli Mattos Diosti, MD, Universidade Federal do Parana, Curitiba, PR, Brazil; Mariana Lechitzki, Universidade Federal do Parana, Curitiba, PR, Brazil; Mauricio Sato, MD, Universidade Federal do Parana, Curitiba, PR, Brazil; Mireille Machado, MD, Universidade Federal do Parana, Curitiba, PR, Brazil

Contact dermatitis is a dermatosis caused by development of sensitized T lymphocyte, which induces a delayed type hypersensibility. Patch test is the best test available to confirm diagnosis. Few studies exists comparing different types of patch tests on the same population and evaluating their specificity and sensitivity. We compare two patch test batteries commercialized in Brazil. Nine hundred tests in 15 volunteers have been carried out, whose characteristics were similar to a general Brazilian population. The tests were divided into two groups: A and B. Negative agreement occurred in 95.78% of the tests. Twenty-four tests presented with allergic agreement (2.67%) and 14 (1.55%) presented with no agreement. Hydroquinone, irgasan, fragrance mix, p-Phenylenediamine (PPD) mix, and promethazine had been the tests with lower efficiency for test B. Otherwise, balsam of Peru for test A. The two set reproducibility were similar. Set choice depends upon center preference and economic impact. In special cases where hydroquinone, irgasan, fragrance mix, PPD mix, promethazine, and balsam of Peru clinical suspicion of allergy exist, special attention must be given to set choice.

Commercial support: None identified.