18660

Increased systemic symptoms in patients with positive direct immunofluorescence of skin biospies with Henoch-Schonlein purpura/IgA vasculitis: A retrospective chart review

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Direct immunofluorescence (DIF) of skin biospies is an important tool in the diagnosis of Henoch-Schonlein purpura (HSP)/IgA vasculitis. In a retrospective chart review of IgA positive vasculitis patients seen by dermatology over the previous 5 years, we sought to determine whether presence of systemic symptoms classically seen in HSP correlated with a higher risk of renal disease. A total of 14 out of the 22 patients (63.63%) who underwent DIF staining of a skin biopsy tested positive for IgA. Of the patients that were positive for IgA on biopsy, 64.3% reported gastrointestinal symptoms, 28.6% had musculoskeletal involvement, and 14.3% reported fever. 38.5% of patients with positive IgA DIF had hematuria, 36.4% had proteinuria, and 21.4% increased Cr. Serum IgA levels were tested in 7 patients with positive IgA on DIF and returned positive in 57.1% of patients. Interestingly, 5/14 (28.6%) patients who were IgA positive on DIF did not experience any systemic symptoms. However, of these 5 patients, 1 patient did develop renal abnormalities with proteinuria on urinalysis. In conclusion, we recommend performing DIF on all patients as the presence of IgA, even in the absence of other HSP features, still indicates risk for renal involvement. More research needs to be done in larger populations to better understand the pathophysiology of HSP/IgA vasculitis.

Commercial disclosure: None identified.

18684

A scoring method to assess the gentleness of cleansers

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Surfactants are a key component of skin cleansers to remove unwanted substances. Paradoxically, surfactants also interact with proteins and solubilize lipids in the stratum corneum, which weakens the skin barrier and results in loss of moisture, oxidative stress and inflammation. This leads to physiological changes that can exacerbate sensitive skin conditions. Our aim is to create a scoring system to help consumers and professionals differentiate the gentleness of cleansing products. The result is a 5-star rating for gentleness, whereby a high rating of 5 out of 5 stars suggest that the cleanser is gentle on normal skin. The gentleness scoring system is based on both formulation characteristics, and in vitro assessment. The formulation will be evaluated for the presence of mildness enhancers, absence of allergens and sensitizers, and pH of formulation that falls within skin pH range. These three attributes of formulation characteristics are of equal weightage and contribute to 2.5 out of 5 stars. The remaining 2.5 stars are determined by the gentleness of the surfactant system via in vitro methodologies. The impact of the surfactant system on the skin barrier will be visualized by multiphoton microscopy to assess surfactant penetration through the epidermis. Loss of stratum corneum lipids will be quantified by Fourier-transform infrared spectroscopy. The in vitro results will be analyzed as a fold difference relative to negative control. Thus, a gentle formula with minimal impact to the skin barrier will obtain a higher gentleness score that will be validated by either a clinical or consumer study.

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18704

Variability in malignancy ratios in dermatomyositis patients with anti−TIF-1 antibodies via line immunoassay versus immunoprecipitation

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Background: Dermatomyositis (DM) patients with transcription intermediary factor 1 (TIF-1) antibodies demonstrate an even stronger association with malignancy than the broader population of DM patients with ratios between 42%-100%. These studies measure TIF-1 antibodies via immunoprecipitation (IP). However, commercially available testing often reports TIF-1 antibodies via line immunoassay (LIA), and there is no data available on ratios of malignancy in DM patient with TIF-1 antibodies via this means.

Methods: A retrospective chart review was performed of DM patients with positive TIF-1 antibodies via LIA or IP from 1/1/14 to 4/14/19 at the University of Utah. Only patients with results for both methods were included. The following information was extracted: age, gender, race, DM diagnosis date, associated malignancies and date of diagnosis. We excluded those patients with less than 1 year of follow-up after DM diagnosis.

Results: 19 patients met the inclusion criteria. Positive percent agreement between these two methods using paired observation was 73.7%. The malignancy ratios among patients positive for TIF-1 via IP and LIA were 16.7% and 30.0%, respectively.

Conclusions: This is the one of the largest studies to date evaluating malignancy ratios in TIF-1 positive DM patients. Malignancy ratios differed drastically depending on the method of antibody detection. Our study suggests that malignancy ratios may be much lower in clinical practice using commercially available tests than those reported in the literature. Larger studies are needed to understand the true risk of malignancy in TIF-1 positive DM patients, and whether LIA testing is more predictive of future malignancy.

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18713

A comparison study of preclinical and clinical underrepresented minority medical students perceptions of dermatology

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Background and Objective: Medical students have limited exposure to dermatology during their medical education. Given the dearth of dermatologists from groups underrepresented in medicine (UIM), medical schools at Historically Black Colleges and Universities could be important resources for recruitment of medical students into the specialty, especially if they provide early exposure to the content and value of dermatology. The purpose of this study was to compare preclinical UIM medical students' perception of dermatology to UIM medical students who have completed the core clinical clerkships. We hypothesized that first year medical students with minimal exposure to dermatology are less likely to find value in the field when compared with students who have completed core clerkships. Design: An anonymous survey was distributed to all medical students at Howard University College of Medicine.

Results: 119 responses were received. Compared with first-year medical students, students who have completed core clerkships were more likely to believe that dermatology lectures and clinical rotations are important in medical school training (54.6% vs 80%) and more likely to strongly believe that dermatologists play a critical role in the overall happiness of patients with skin diseases ($P = .003$).

Conclusions: Findings suggest that increased clinical exposure improves UIM medical students' perceptions of the value of dermatology, and suggests that more clinically-relevant exposure to dermatology early in medical school may have a significant impact on medical students' perception of the field and its role in the house of medicine. This in turn may improve recruitment of UIMs to dermatology.

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