16772

Distribution of dermatologists in the urban setting: Comparing zip codes with high and low representation of African Americans

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To adequately care for the community, one dermatologist is required per 25,000 people. This requirement is not met in the U.S; concomitantly, a non-uniform geographic distribution exists, as dermatologists tend to prefer practicing in the urban setting. No studies to date have characterized dermatologists' locations within cities and its relationship with neighborhood demographics such as ethnicity. African Americans suffer from inferior access to care compared with Whites across health care. By comparing dermatologists' distribution in urban zip codes with high and low representation of African Americans, this study aimed to further define this disparity. We utilized national census data from 2010 to first identify zip codes with populations greater than 25,000 people, as these theoretically should have at least 1 dermatologist. Next, we ordered these zip codes by the percentage of African Americans and identified high (85th percentile) and low (15th percentile) groups. We subsequently utilized the physician database Definitive Healthcare to identify the number of dermatologists in these zip codes. We found that zip codes with high percentage of African Americans have an average of 1.02 dermatologists (1 per 39,367.50 people), which is below the adequate limit. Zip codes with a low percentage of African Americans averaged 2.94 dermatologists (1 per 13,999.88 people), which is above the adequate limit. These findings highlight the barrier that urban African Americans have in accessing dermatologists, specifically due to lack of proximity to a dermatologist. There is a need to expand practice locations to urban areas with high representation of African Americans.

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16774

Gold photothermal therapy on acne of Asians: Preliminary study

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Conventional methods of acne treatment are less effective (topical antibiotics), and have side effects such as irritation (topical retinoids), antibiotics resistance (oral and topical antibiotics), teratogenicity (isotretinoin). Therefore, a new safe and effective treatment is needed for acne. Treatment using light sources, including blue light and IPL (intense pulsed light), is also increasing to enhance the effectiveness of acne treatments. Photodynamic therapy uses not only light sources, but also apply photosensitizer. The most commonly used photosensitizer is 5-aminolevulinic acid, methyl aminolevulinate, which is effective for inflammatory acne, but the possible side effects include light-induced pain, post-procedure erythema, swelling, and postinflammatory hyperpigmentation. Especially, patients have to avoid sun exposure for a certain period because of the photosensitizer. According to the previous studies, selective photothermolysis of sebaceous follicles with topically delivered light-absorbing gold microparticles has been reported as a well tolerated, effective treatment for acne. Nine patients with moderate to severe acne were treated with gold photothermal therapy. All patients received three successive treatment at 1-week intervals with photo pneumatic IPL after applying the gold microparticles on the skin. The effect of the treatment was evaluated with the photographs, number of the pustule, papule, and comedone. There was a significant decrease in the number of pustule, papule, and comedone in all patients without severe adverse effect. A punch biopsy was done in 3 patients before and after the treatment, and selective destruction of the sebaceous gland was observed in the histology. Herein, we introduce gold photothermal therapy as an effective and safe treatment option for acne in Asians.

Commercial disclosure: None identified.

16786

Are new molecular tests for melanoma affecting clinical practice among pigmented lesion experts?

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Background: Three commercial tests based on gene expression profiling (GEP) are designed to improve diagnostic and/or prognostic accuracy for melanoma and are currently available for use. However, routine GEP testing is not recommended in clinical care guidelines and it is unclear how these tests are being used in clinical practice.

Methods: We investigated the use of these tests by pigmented lesion experts using a survey platform (https://jotform.com) that was disseminated by email to 50 pigmented lesion experts, most of whom are members of the Pigmented Lesion Subcommittee of the ECOG/SWOG Melanoma Prevention Working Group.

Results: Response rate was 84%, most of whom manage pigmented lesions as a majority of their clinical practice (79%). Use of the myPath Melanoma, PLA, and Decision-Dx tests was 21%, 21%, and 29%, respectively, and 63% of the respondents using these tests reported that test results impacted patient management. Users of these tests ordered them on average less than once per month. Years in practice or percent of practice devoted to pigmented lesions did not correlate with test use. Respondents not ordering GEP tests perceived lack of utility, need for further validation studies, and reluctance to practice outside clinical guidelines.

Discussion: Some pigmented lesion experts are using these tests to guide patient management, but most felt further studies are needed for their adoption into clinical practice. Prospective clinical trials are needed to determine whether actions based on these different test results can improve patient outcomes.

Commercial disclosure: None identified.

16818

An investigation of the skin barrier restoring effects of a cream containing ceramides in a multivesicular emulsion in people with dry, eczema-prone, skin: The RESTORE study phase 2

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Introduction: The skin of atopic dermatitis (AD) patients is characterised by abnormal stratum corneum (SC) lipid levels. Consequently, the lamellar matrices are disrupted and skin barrier function is diminished, increasing skin sensitivity to irritants and allergens.

Objective: To investigate whether a cream containing skin lipids (ceramides, triglycerides and cholesterol) in a multivesicular emulsion can reinforce the skin barrier.

Methods: A double-blind intrasubject-controlled study in 34 people (aged 20-89), prone to AD, with dry skin was conducted. Each participant underwent 4 weeks treatment with the test cream on one forearm and lower leg and a reference emollient cream on the other (randomized). Skin properties were determined before and after treatment. Lipid structure was assessed using FTIR spectroscopy.

Results: Skin barrier integrity was greater at sites treated with the test cream, as indicated by a lower transepidermal water loss after tape-stripping (37.1 ± 2.2 verses 62.5 ± 3.0 g/m^2/h, $P < .0001$). Sites treated with the test cream displayed greater SC lipid levels (by $30 \pm 4\%$) and increased lipid chain ordering (enhanced structure, $P < .0001$). Lipid changes were significantly associated with skin barrier integrity (r0.608). Compared with the reference, treatment with the test cream increased hydration ($P < .0001$), decreased dryness ($P = .0043$) and reduced sodium lauryl sulphate–induced irritation ($P < .0001$).

Conclusions: The test cream delivers essential skin lipids deep within the SC where they reinforce the skin barrier and protect the skin from dryness and irritation. Compared with the reference emollient cream, commonly prescribed in the UK, the test cream is highly suited to the management of dry, sensitive, skin.

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