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THE Dermatology® Digest

Volume 2, Number 8 August/September 2021

Climate Change & Skin Cancer

Mohs vs. WLE for Melanoma *In Situ*

Stress and Your Brain

Off-Label Pearl

Elastosis perforans serpiginosa

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Volume 2, Number 8 | August/September 2021

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THE Dermatology Digest

***The Dermatology Digest* is Different**

Our multimedia approach delivers engaging and authoritative content in digestible bites for dermatologists overloaded with information in the emerging virtual environment. A distinct new concept, *The Dermatology Digest* filters practical and important information from industry meetings and develops original content for identified knowledge gaps in digital (video, podcast) and print formats. Concise, yet comprehensive, our content comes from the views, voices, and visions of leading dermatologists. As such, ours is an informative, educational approach that emphasizes key details in support of safe, efficacious patient results.

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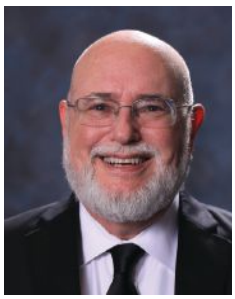
Guest Editorial

A "pre**scribe**tion" for dermatologist burnout



Brian Berman, MD, PhD

Professor Emeritus of Dermatology and Cutaneous Surgery University of Miami, Miller School of Medicine, Miami, Florida

Co-director Center for Clinical and Cosmetic Research, Aventura, Florida

Associate Medical Editor, *The Dermatology Digest*

Burnout is a psychological syndrome consisting of emotional exhaustion, depersonalization, loss of purpose in work, feelings of ineffectiveness, cynicism, regarding people as objects rather than human beings, and a reduced sense of personal accomplishment.

In 2018, 32% of dermatologists polled reported burnout and 9% reported both burnout and depression. The good news: as a specialty, dermatology was towards the bottom of the list, with the specialties of critical care and OB-GYN being most affected by burnout.

There are negative consequences of burnout for the physician, the patient, and the overall healthcare system. Physician burnout is linked to lower work satisfaction, stressed personal relationships, substance abuse (1 in 10 doctors), clinical depression, and suicide. Of note, physician suicide is 6 times higher than the national average. Burnout is associated with increased physician errors, worse patient outcomes, higher mortality rates in hospitalized patients, increased financial costs due to errors, more malpractice claims, lower job productivity, and higher physician turnover.

Being physicians, we always look for the cause(s) of a disease to direct treatment. It remains unclear whether we have identified actual causes of burnout, or just risk factors or associations. In 2018, the most commonly cited burnout factors were too many bureaucratic tasks, such as charting and paperwork, increased electronic health recordkeeping, and too many work hours. In 2021, we might add practice disruptions due to COVID-19 and pervasive restrictions on recreational activities and interpersonal interactions mandated by the realities of the current pandemic.

There is no single magical bullet to "cure" burnout. Burnout requires multiple interventions at the individual, organizational, and national levels. It has been suggested that organizational-directed interventions are twice as effective at reducing burnout than physician-directed ones. So let's focus on one possible solution—the use of scribes in medical practice. Incorporating scribes in medical practice resulted in a 51% reduction in clinician electronic medical record documentation (EMR) time, a 57% increased patient face time

After implementation of scribes, a survey of dermatologists revealed a

94%

INCREASED JOB SATISFACTION

and a

70%

IMPROVEMENT IN FEELINGS OF BURNOUT

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during visits, and a 27% decrease in computer time during these visits. Productivity actually rose, with an 8.8% increase in the number of patients seen per hour, a 10.5% increase in RVUs completed per hour, and a 7.7% increase in revenue.

The incorporation of scribes into a practice improves physicians' clinical satisfaction by directly addressing the common physician complaint of not having enough face time with patients. While use of a scribe partially solves the problem of time spent on charting, chart quality and accuracy also increase. Provider burnout decreased by 21.8% after offloading electronic or health record documentation by pairing 1 medical assistant functioning as a scribe with 1 physician. After implementing scribing, 6 high-functioning primary care sites reported improved patient staff and physician satisfaction scores, and 82% of pediatric emergency department providers felt their skills were used more effectively when working with a scribe, thereby decreasing the likelihood of burnout. After implementation of scribes, a survey of dermatologists revealed a 94% increased job satisfaction and a 70% improvement in feelings of burnout.

If one is looking to hire a medical scribe, what are the job requirements? Unfortunately, there are no set standards. Generally, a scribe should possess a high school diploma or GED, computer aptitude, typing speeds of >50 words per minute, excellent verbal and written communication skills, and a familiarity with medical terms and abbreviations, basic anatomy, and drug names. Many scribe agencies provide a 2-week training course as a precursor basis for on-the-job training. Although there is no certification that is universally required to become a medical scribe, there are certification exams for credentialing through The American Health Care Documentation Professionals Group, the American College of Medical Scribe Specialists, and the American Academy of Professional Coders. Less stringent online training courses in scribing typically do provide a "certificate" upon completion. Recently, some community colleges and universities are offering courses in scribing.

Furthermore, there are some legal issues to be considered. Scribes have to be trained for HIPAA and documentation requirements for billing confidentiality, and are not permitted to make independent decisions or translations while entering information into the EMR beyond what is directed by the provider. The scribe's signature must be clearly distinguishable from that of the physician in the health record. (For example, "Scribed for Dr. Smith by James Jones.") Many states don't allow the use of scribes by nurse practitioners or physician assistants if the latter are not independent practitioners.

> "Provider burnout decreased by 21.8% after offloading electronic or health record documentation by pairing 1 medical assistant functioning as a scribe with 1 physician."

Finally, is it fiscally viable to have a scribe in your practice? Scribes are generally paid $10-14 per hour. The cost is more than offset by adding 1 extra patient per half day dermatology session, with an estimated yearly return on investment ranging from $59,600 for a physical scribe to $79,300 for a virtual scribe.

I would like to offer a final caveat. Remain vigilant against becoming so comfortable with scribed assistance that you miss errors. Perform periodic, careful reviews of scribed notes! ◈

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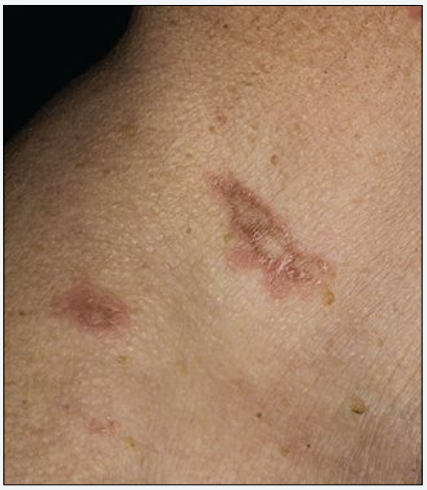
Off-label Pearl

By Ted Rosen, MD, FAAD, Editor-in-Chief

Elastosis perforans serpiginosa (EPS)

is a rare condition in which elastic fibers are extruded via a transepidermal route. EPS typically presents as keratotic papules arranged in an annular or arcuate array, most commonly on the neck and flexural areas. While it can be seen alone, EPS often occurs in conjunction with genetic disorders, such as Down, Ehlers-Danlos, Rothmund-Thomson, and Marfan syndromes; osteogenesis imperfecta; and pseudoxanthoma elasticum. There is no consensus treatment, although cryosurgery, pulsed dye laser ablation, and topical imiquimod have been used. This case report is the third such one, demonstrating remarkable resolution following the oral administration of acitretin 25mg daily for about 3 months. Considering the low risk of serious toxicity and the relatively low effective dose, acitretin should be considered as a potential therapy for EPS cases.

TO READ MORE: Enos T, et al. Treatment of extensive elastosis perforans serpiginosa with acitretin in a man with Down syndrome. *Int J Dermatol.* 2021;60(5):611-612.



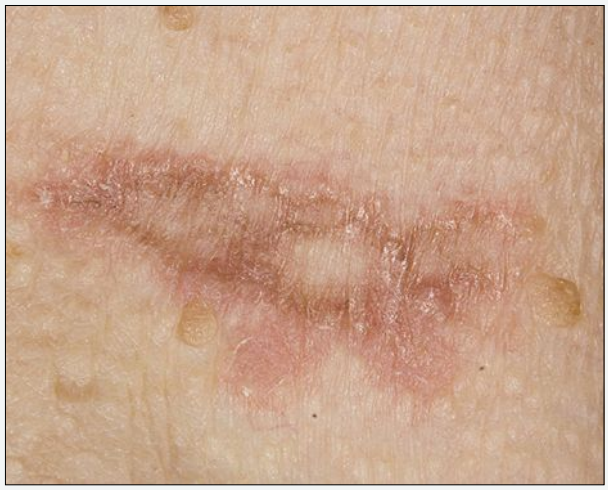


Photo credit: Madhero88/ Wikimedia Commons

Literature Lessons continued on page 8

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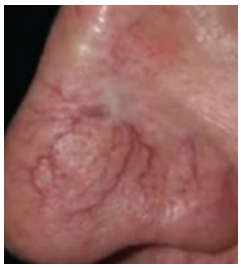
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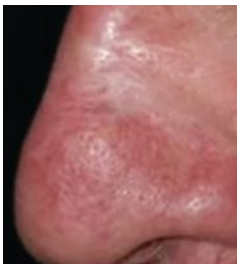
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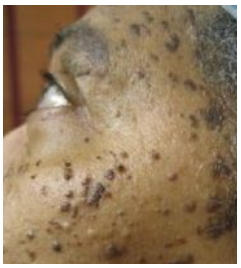
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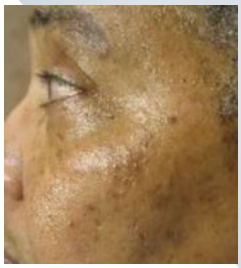
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Literature Lessons

COVID-19

A large-scale survey of AAD members indicated that use of **TELEDERMATOLOGY** among respondents went from 14.1% pre-pandemic to 96.9% during the pandemic. Live interactive was the most common modality, although survey respondents felt the combination of video with store-and-forward photographs was the most accurate. Over 80% felt that inadequate reimbursement was the single greatest barrier to use and continuation of teledermatology. Nonetheless, 58% definitely plan to continue utilizing teledermatology.

TO READ MORE: Kennedy J, et al. Dermatologist Perceptions of Teledermatology Implementation and Future Use After COVID-19: Demographics, Barriers, and Insights. *JAMA Dermatol.* 2021;157(5):595-597.

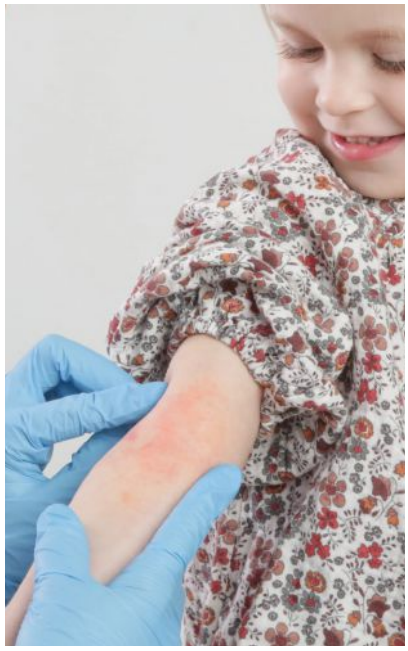
A recent study involving the sera collected from individuals who were 2 or 4 weeks after their second **PFIZER COVID-19 VACCINATION** showed neutralization capacity against a number of the newer COVID-19 viral variants, including several from India.

TO READ MORE: Liu J, et al. BNT162b2-elicited neutralization of B.1.617 and other SARS-CoV-2 variants. *Nature*. 2021,June 10. doi: 10.1038/s41586-021-03693-y.

PEDIATRIC DERMATOLOGY

An Italian study showed that, among pediatric patients with Type 1 diabetes, there was about an 8% prevalence of **PSORIASIS**. This is 4 times the prevalence of psoriasis in the general Italian pediatric population. An etiologic link might be the elevated levels of IL-17 found in Type 1 diabetic serum, as the TH17 pathway is well known to be intimately involved with psoriasis. (**Editor's note:** This needs to be repeated in other countries.)

TO READ MORE: Caroppo F, et al. Prevalence of psoriasis in a cohort of children and adolescents with type 1 diabetes. *J Eur Acad Dermatol Venereol*. 2021; Apr 29. doi: 10.1111/jdv.17318.



Analysis of 2074 children aged 2-17 who had completed 10 years of participation in the Pediatric Eczema Elective Registry disclosed that those with more severe **ATOPIC DERMATITIS** were more likely to be diagnosed with a learning disability, independent of socioeconomic factors. This suggests that children with more severe atopy should be monitored and screened for learning difficulties so that appropriate interventions can be instituted.

TO READ MORE: Wan J, et al. Association of atopic dermatitis severity with learning disability in children. *JAMA Dermatol*. 2021;157(6):651-57.

PSORIASIS

Using several large insurance databases, including over 123,00 psoriasis or psoriatic arthritis patients, investigators concluded that treatment with **USTEKINUMAB** was associated with a 1.4-3.0 times lowered risk of hospitalization due to serious infection when compared to other biologic agents and apremilast. Apart from ustekinumab, other drugs received by patient in this study included the following: adalimumab, apremilast, certolizumab, etanercept, golimumab, ixekizumab, and secukinumab.

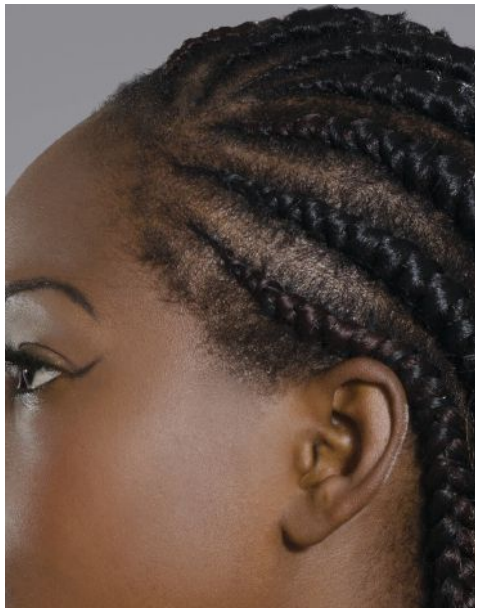
TO READ MORE: Jin Y, et al. Risk of hospitalized serious infection after initiating ustekinumab or other biologics for psoriasis or psoriatic arthritis. *Arth Care Res.* 2021; May 10; doi: 10.1002/acr.24630.

HAIR AND NAILS

There is an art to taking a history and doing an appropriate examination when dealing with **HAIR LOSS** in those with tightly coiled hair. The Editor suggests carefully reading through this short, pearl-filled manuscript: Grayson C and Heath C. An approach to examining tightly coiled hair among patients with hair loss in race-discordant patient-physician interactions. *JAMA Dermatol.* 2021;157(5):505-506.

Aside from hairstyle modification, all of the following—alone or in combination—may be beneficial in the treatment of traction-induced alopecia: topical steroids, topical minoxidil (5% recommended), topical 1% clindamycin, intralesional triamcinolone (2.5-5.0mg/ml dilution), oral tetracycline derivatives (tapered to sub-antimicrobial doses), and hair transplantation.

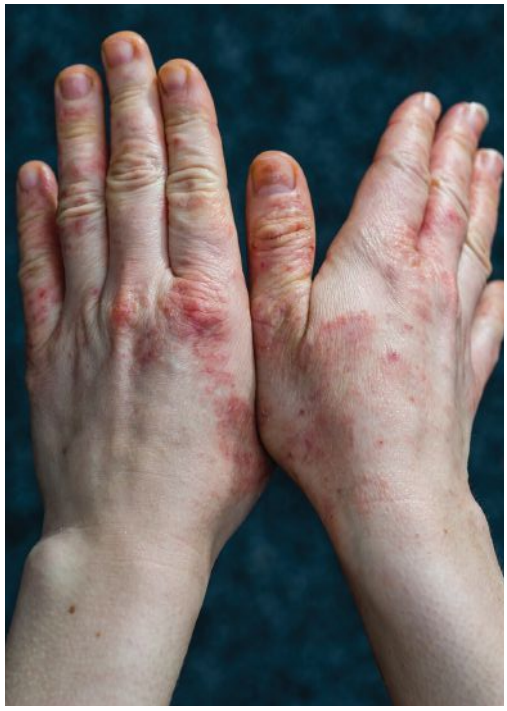
TO READ MORE: Aktintilo L, et al. Management of traction alopecia: our experience and a brief review of current literature recommendations. *J Drugs Dermatol.* 2021;20(5):578-579.



ATOPIC DERMATITIS/ECZEMA

Two cases of **RECALCITRANT DYSHIDROTIC ECZEMA** were successfully managed with dupilumab 300mg every other week. This adds to the growing body of literature endorsing the use of this biologic drug in this particular off-label manner.

TO READ MORE: Gall RA. Two cases of recalcitrant dyshidrotic eczema treated with dupilumab. *J Drugs Dermatol.* 2021;20(5):558-559.



Studies evaluating Investigator Global Assessment, improvement in EASI score, and reduction of itch showed major benefit with both 2mg and 4mg daily doses of the selective **JAK INHIBITOR BARICITANIB**. Benefit persisted 32-68 weeks into the studies.

TO READ MORE: Silverberg JI, et al. Long-term efficacy of baricitinib in adults with moderate to severe atopic dermatitis who were treatment responders or partial re-sponders: an extension study of 2 randomized clinical trials. *JAMA Dermatol.* 2021Jun 1;157(6): 691-699. doi: 10.1001/jamadermatol.2021.1273.

A decade-long Kaiser Permanente cohort study included over 220,000 adult patients with and without **ACTINIC KERATOSIS** within 2 years of study initiation. The risk of development of cutaneous squamous cell carcinoma (cSCC) increased each year, but at a faster rate in those with actinic keratosis. At 10 years, the cumulative incidence of cSCC was 17.1% in AK patients compared to 5.7% in control patients.

THE CUMULATIVE INCIDENCE OF cSCC WAS

17.1% **IN AK PATIENTS**

5.7% **IN CONTROL PATIENTS**

Other specific factors associated with cSCC development included older age, Caucasian race, and male gender.

TO READ MORE: Madani S, et al. Ten-year follow-up of persons with sun-damaged skin associated with subsequent development of cutaneous squamous cell carcinoma. *JAMA Dermatol*. 2021;157(5):559-565. doi: 10.1001/jamadermatol.2021.0372.

COMMON CUTANEOUS MALIGNANCIES may pose a logistical problem in the oldest of old patients. In a study of 61 patients aged 92-104, electrochemotherapy with bleomycin (under regional or local anesthesia) provided complete response in about 60% and local control over a year in about 80%.

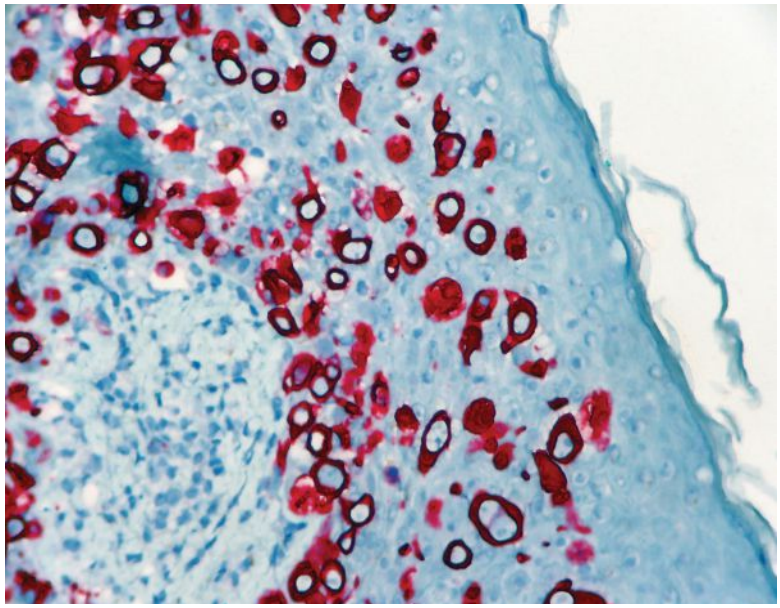
TO READ MORE: Sersa G, et al. Outcomes of older adults aged 90 and over with cutaneous malignancies after electrochemotherapy with bleomycin: a matched cohort analysis from the InspECT registry. *Eur J Surg Oncol.* 2021;47(4):902-912.

Surgical excision remains the treatment of choice for **IN-TRANSIT METASTATIC MALIGNANT MELANOMA**. However, multiple or widespread lesions may preclude this approach. The authors successfully managed such a case with the following combination: deep shave removal, followed by electrodesiccation and curettage, followed by 3 months daily application of 5% imiquimod cream.

TO READ MORE: Globerson JA. Novel treatment of in-transit metastatic melanoma with shave excision, electrodesiccation and curettage, and topical imiquimod 5% cream. *J Drugs Dermatol.* 2021;20(5):555-557.

Wide local excision of **EXTRAMAMMARY PAGET'S DISEASE** is associated with 20-60% recurrence rates. Mohs micrographic surgery reduces that recurrence rate dramatically (approximately 3.3%) when utilized with intraoperative CK7 staining. The latter allows for identification of atypical subclinical finger-like tumor extension, which might otherwise be missed.

TO READ MORE: Kim EY, et al. Bilateral contiguous scrotal extramammary paget's disease treated with mohs micrographic surgery and CK7 immunohistochemical staining. *J Drugs Dermatol*. 2021;20(5):565-566.



A case of **MULTICENTRIC RETICULOHISTIOCYTOSIS** demonstrated remarkable response to treatment with the JAK-1 inhibitor, upadacitinib, following failure of prednisone, hydroxychloroquine, methotrexate, and infliximab.

TO READ MORE: Niaki OZ, et al. Treatment of severe multicentric reticulohistiocytosis with upadacitinib. *JAMA Dermatol.* 2021;157(6):735-737.

HIDRADENITIS SUPPURATIVA

While absenteeism is a known concomitant of active hidradenitis suppurativa (HS), **DECREASED PRODUCTIVITY WHILE AT WORK** has not previously been explored. This study, involving 523 working HS patients, indicated that about 20% were considerably less productive compared to a time when they were working without active HS. Factors that were associated with reduced productivity included the following: inguinal and gluteal disease, more severe disease, greater pain, and higher rates of anxiety or depression.

TO READ MORE: van Straalen KR, et al. Impact of hidradenitis suppurativa on work productivity and associated risk factors. *J Am Acad Dermatol*. 2021;84(5):1401-1405.

After analyzing 16 select studies involving over 38 million participants, the authors concluded that the overall **PREVALENCE OF HIDRADENITIS** was about 0.4%. Data from the U.S., Australia, Western European, and Scandinavian nations ultimately were included. Considerable heterogeneity of study design and data collection precluded this from being a "definitive" number.

TO READ MORE: Jfri A, et al. Prevalence of hidradenitis suppurativa: a systematic review and meta-regression analysis. *JAMA Dermatol.* 2021, May 26. doi: 10.1001/jamadermatol.2021.1677.

ACNE

Due to its ability to reduce cytokine synthesis and release, modest antibacterial properties, and ability to suppress habitual behaviors (such as picking), **N-ACETYLCYSTEINE** may be beneficial in some cases of acne vulgaris.

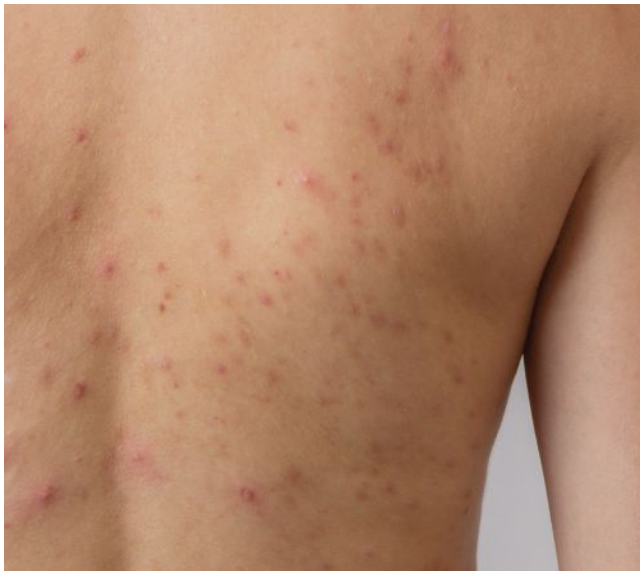
TO READ MORE: Mardani N, et al. A systematic review of n-acetylcysteine for treatment of acne vulgaris and acne-related associations and consequences: focus on clinical studies. *Dermatol Ther*. 2021. May;34(3):e14915. doi: 10.1111/dth.14915.

Post-hoc analysis of pivotal trial data indicates that the new **TAZAROTENE** formulation (0.045% lotion) is effective across both adolescent and adult age groups, as well as both sexes. There was a tendency for more irritation among female study participants.

TO READ MORE: Green LJ, et al. Tazarotene 0.045% lotion for moderate-to-severe acne patients: pooled phase 3 analysis by age and sex. *J Drugs Dermatol*. 2021;20(6):608-615.

Post-hoc analysis of pivotal trial data indicate that **SARECYCLINE** (1.5mg/kg/day for 12 weeks) showed IGA efficacy rates for truncal acne (chest and back) significantly better than placebo. This parallels the benefit previously reported for facial acne.

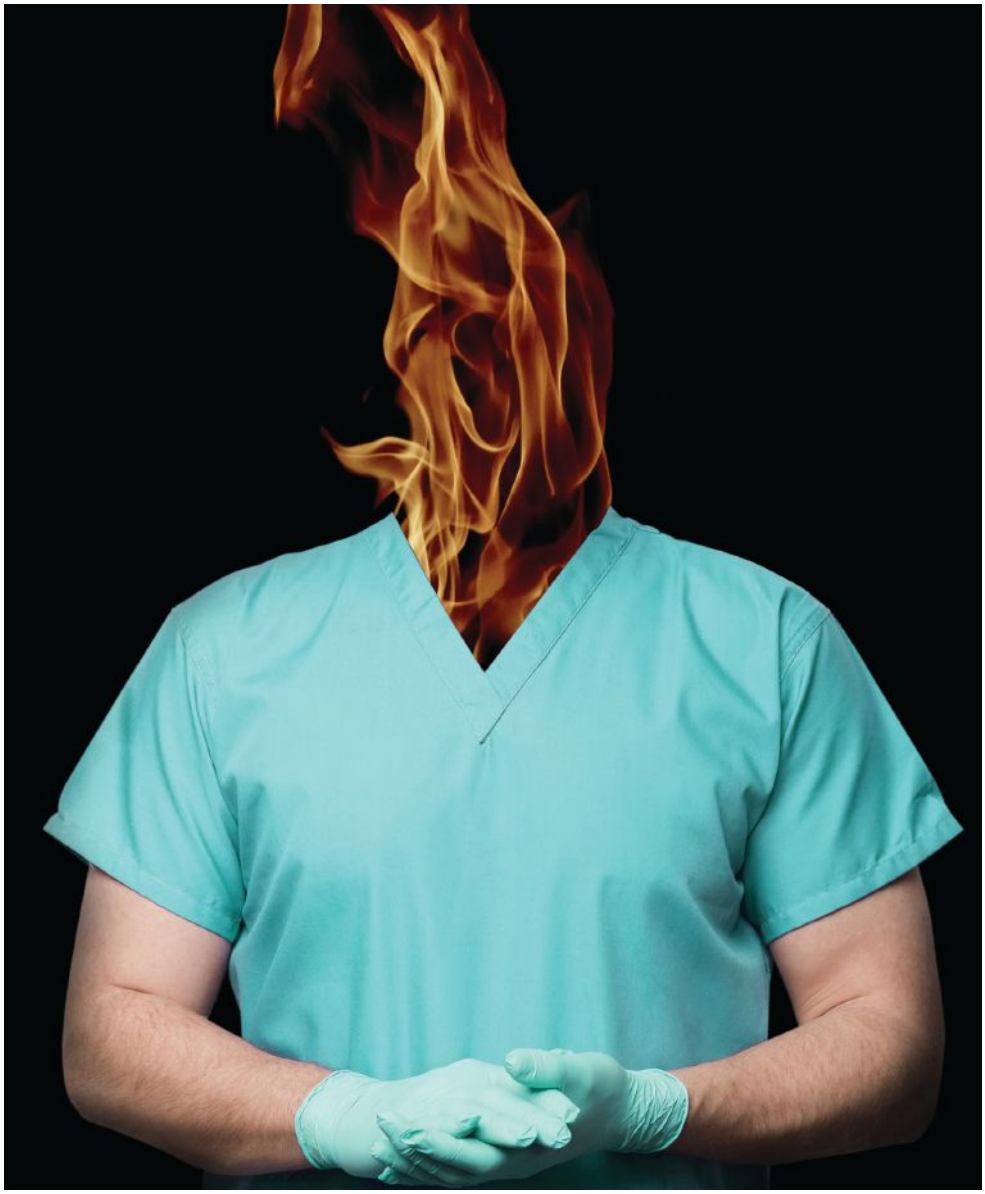
TO READ MORE: Del Rosso JQ, et al. Management of truncal acne with oral sarecycline: pooled results from two phase-3 clinical trials. *J Drugs Dermatol*. 2021; 20(6):634-640.



GENERAL DERMATOLOGY

A recent survey showed that only 65% of dermatologists are very or somewhat happy outside of work, down from 85% in a similar survey done a year ago. Dermatologists suffering from **BURNOUT** noted that, most often, this feeling pre-dated the current pandemic. However, a significant number of dermatologists are now anxious about their future, specifically related to COVID-19.

TO READ MORE: Martin KL and Koval ML. Medscape Dermatologist Lifestyle, Happiness & Burnout Report 2021; 20212, Feb 19. Accessible at: https://www.medscape.com/slideshow/2021-lifestyle-dermatologist-6013506?src=WNL_physrep_210609_lifestyle_specialty2021_rm&uac=44393SX&implD=3429730&faf=1#1



CUTANEOUS METASTASES from internal malignancy may assume unusual morphologies. In this case, cutaneous metastasis from sigmoid adenocarcinoma closely mimicked erythema ab igne.

TO READ MORE: Alhuzimi AM, et al. Erythema ab igne masking cutaneous metastasis of colorectal adenocarcinoma. *Dermatol Reports.* 2021. Mar 18; 13(1): 9079. doi: 10.4081/dr.2021.9079

Using information from a 2-year sample of the U.S. nationwide Optum Database, the authors found the annualized incidence and prevalence of **GRANULOMA ANNULARE** to be 0.04% and 0.06%, respectively. These are relatively low incidence and prevalence estimates. Women outnumbered men by a 3-to-1 ratio.

TO READ MORE: Barbieri JS, et al. Incidence and prevalence of granuloma annulare in the United States. *JAMA Dermatol.* 2021;June 9. doi:10.1001/jamadermatol.2021.1847

Insights on ulcerated infantile hemangiomas in the β-blocker era

With Esteban Fernández-Faith, MD

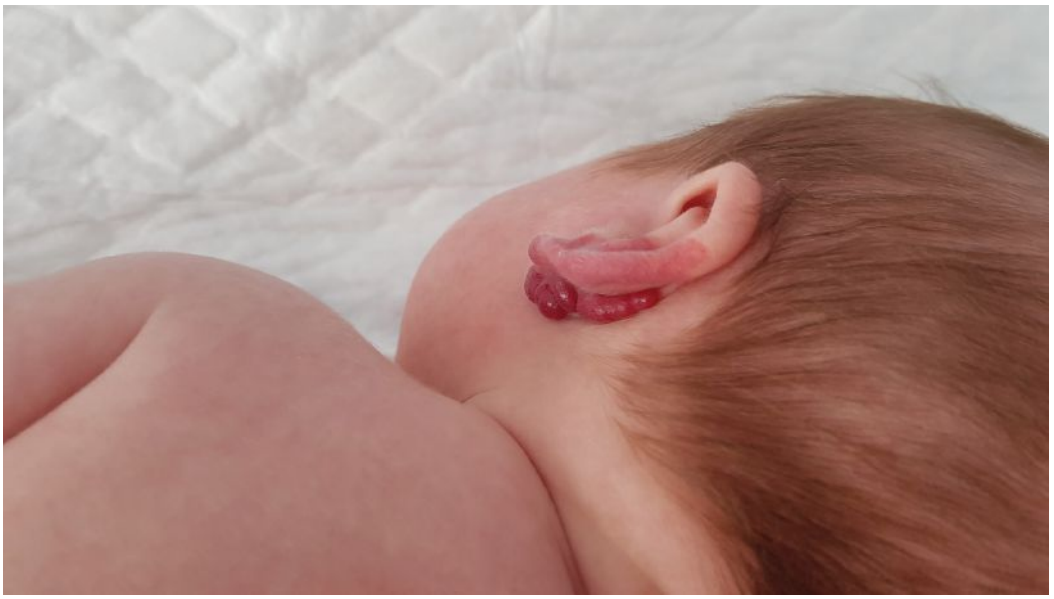
ESTEBAN FERNÁNDEZ-FAITH, MD
Associate Professor of Pediatrics and Dermatology
Ohio State University, and Program Director of the Pediatric Dermatology Fellowship
Nationwide Children's Hospital
Columbus, Ohio

"Although β-blockers have been standard therapy for problematic infantile hemangiomas (IHs) for a number of years, ulceration continues to be a challenge in many patients with IHs.

Large studies of IH ulceration have not been performed since we started using β-blockers," said Esteban Fernández-Faith, MD, Associate Professor of Pediatrics and Dermatology, Ohio State University, and Program Director of the Pediatric Dermatology Fellowship, Nationwide Children's Hospital, Columbus, Ohio.

To address this gap, gain understanding about the efficacy of available treatments for ulcerated IH during the "β-blocker era," and insights on other characteristics of ulcerated IH, Dr. Fernández-Faith and collaborators from centers of the Pediatric Dermatology Research Alliance (PeDRA) conducted a retrospective cohort study.[1]

Their findings have implications for therapeutic decisions and anticipatory guidance discussions.



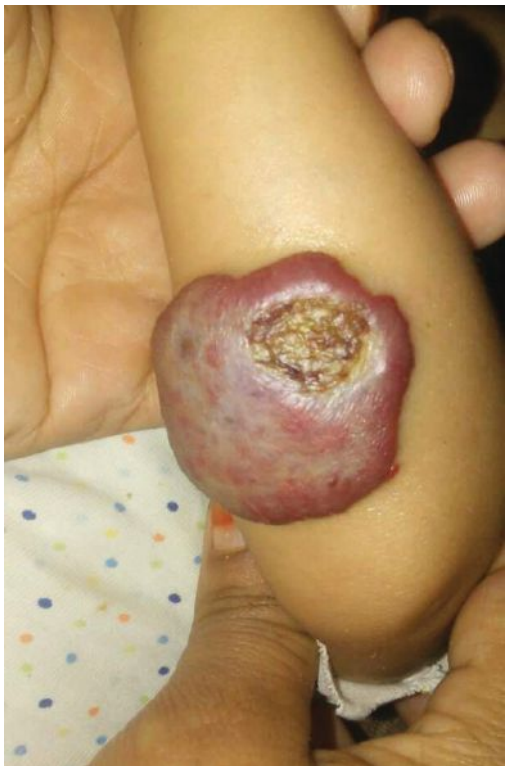


Photo credit: Mohammad2018/ Wikimedia Commons

> **Aggressive ulcerations are very challenging to treat and accounted for approximately 10% of the lesions in our study cohort."**

"Our primary goals were to analyze the efficacy of treatments for ulcerated IH and identify prognostic factors for healing time. The results of our analyses show that some ulcerated IHs take a long time to heal; even some ulcerations develop while a patient is on active treatment with a β-blocker," said Dr. Fernández-Faith.

"We found larger IH size was the main factor associated with a prolonged time to heal, and our data suggest that if ulceration occurs in an IH needing systemic therapy, a lower dose of propranolol leads to shorter heal times."

The study included 436 consecutive patients with an ulcerated IH at 1 of 8 PeDRA centers between 2012 and 2016. A total of 364 patients had appropriate data for the analyses of healing time.

The investigation of treatment intervention efficacy classified patients into 5 groups:

1. Wound care only
2. Topical timolol ± wound care
3. Systemic β-blocker ± wound care
4. Multimodal using at least 2 of the following: topical timolol, systemic β-blocker, and surgery
5. Pulsed-dye laser (PDL)

With the wound care group serving as the reference, median time to healing was significantly longer in patients treated with multimodal therapy or a systemic β-blocker and significantly faster in the PDL group.

"We have to consider that this is a retrospective study. Patients were not randomized to treatment and there are probably unaccounted factors that could contribute to the differences observed," Dr. Fernández-Faith noted. "These findings should not be interpreted to mean that systemic β-blockers do not work, because they do. Rather, the message is that there are other options that could be used, and the decision should be individualized based on the specific situation."

A deeper dive into the outcomes of patients treated with systemic β-blocker therapy showed that the time to healing was two-fold longer among patients treated with a dose of propranolol ≥1mg/kg/day than in those receiving a lower dose.

"To treat IH proliferation, higher doses of propranolol are more efficacious. A dose of propranolol of 2mg/kg/day or higher is commonly used to treat problematic IHs. Based on our research, however, we recommend that if propranolol is indicated for IH treatment and the IH is ulcerated, propranolol should be

started at <1mg/kg/day to enable healing and then carefully titrate up to provide the known benefits of propranolol for controlling IH proliferation," Dr. Fernández-Faith said.

"We can't explain why the lower dose is better for treating ulceration," Dr. Fernández-Faith continued. "We need further research to better understand why ulceration happens in the first place."

Findings for family counseling

Analyses of the effect of IH size on healing time showed median time to heal was 5 weeks for lesions ≤5cm^2, 6.14 weeks for those >5 to ≤10cm^2, 8 weeks for IHs >10 to ≤50cm^2, and 9.29 weeks if the IH was >50 to ≤100cm^2. The results showing the importance of IH size can help clinicians with counseling.

"Median time to healing overall was 6.14 weeks, which is quite a long time considering that these lesions cause significant morbidity, and particularly if they are located in the diaper area or around the mouth," Dr. Fernández-Faith said.

The median age at ulceration development was 13.7 weeks, and as reported in previous research, the vast majority of ulcerations developed in the first 6 months of life. An important minority of the cohort, 17%, developed ulceration after treatment for IH proliferation was started.

"Although we can tell parents or caregivers when ulceration is most likely, the message here is that the possibility for ulceration remains even with treatment and beyond the active proliferation phase of IHs," Dr. Fernández-Faith emphasized.

Classification system

"One of the main roadblocks we encountered as we set out to conduct this study was to come up with a classification system for IH ulcerations. Looking at previous papers we found researchers used different methods that make it hard to make objective comparisons," Dr. Fernández-Faith said.

"Our method was based on objective analysis of ulceration in photographs," Dr. Fernández-Faith noted. "We hope other researchers will find it useful. There is a need for a standardized classification system for IH ulceration severity."

The classification system includes a subgroup of aggressive ulcerations. "Aggressive ulcerations are very challenging to treat and accounted for approximately 10% of the lesions in our study cohort," Dr. Fernández-Faith said. "The aggressive ulcerations can cause significant pain, scarring, and seem to get worse no matter what treatment is used.

"We are looking at the characteristics of these lesions in more detail now to recognize at-risk clinical features and eventually identify better therapeutic approaches." ◈

By Cheryl Guttman Krader

"An important minority of the cohort, 17%, developed ulceration after treatment for IH proliferation was started."

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Climate change & skin cancer

With Eva R. Parker, MD, FAAD

EVA R. PARKER, MD, FAAD
Assistant Professor of Dermatology
Vanderbilt University Medical Center
Nashville, Tennessee

"The skin is our largest organ and is the primary interface with the environment. So, I would argue that dermatologists should be a large part of the conversation about how climate is impacting health," said Eva R. Parker, MD, FAAD.

There are many ways in which climate change impacts skin cancer risk and incidence, she noted. "One is heat. As carbon dioxide emissions increase, CO_2 concentrations in our atmosphere have increased and are trapping massive amounts of heat. In case someone hasn't noticed, we are having repeated heat waves, especially on the West Coast," she said. "Heat leads to human behavior changes. We tend to shed clothing, making our skin more exposed to UV light."

"Another is air pollution," Dr. Parker continued. "CO_2 emissions and greenhouse gas emissions have the same root cause, which is burning fossil fuels. There is a whole host of non-greenhouse gas emissions that also result from burning fossil fuels, including from industry, factories, and cars. Those kinds of pollutants include things like particulate matter, which is noxious for our skin. In fact, particulate matter is so tiny that it

is absorbed by our skin through hair follicles and sweat glands and directly through the epidermis."

Exposure to air pollution can trigger a number of cascades in skin, including through the aryl hydrocarbon receptor, which can lead to carcinogenesis.

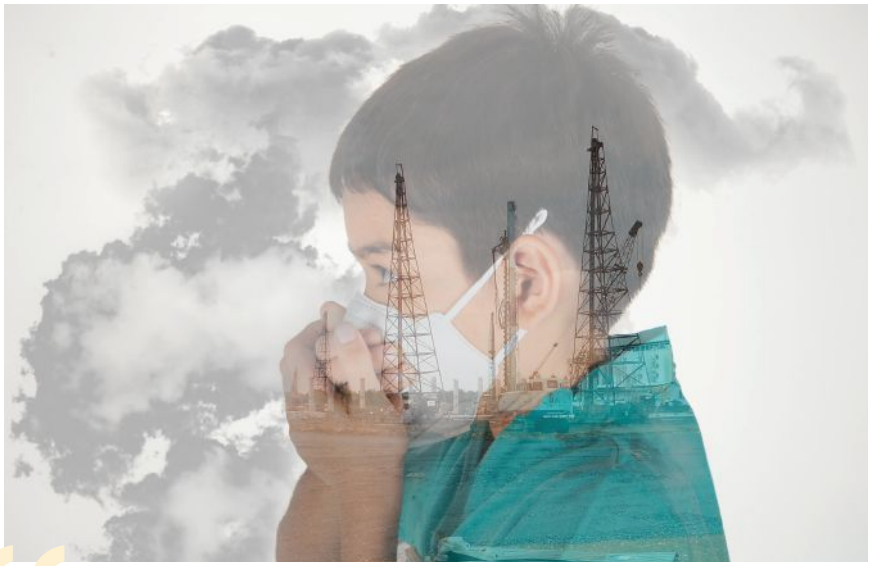
"Interestingly, these mechanisms are synergistic with UV light. When you combine UV and pollution, you get a greater risk of carcinogenesis of the skin," Dr. Parker said. "When you have sunlight and air pollution and heat trapping, you get greater production of noxious tertiary pollutants, like ozone."

In skin, ozone acts to stimulate reactive oxygen species, which can further promote carcinogenesis, Dr. Parker noted.

The stratospheric ozone is the layer of the earth's atmosphere charged with deflecting much of the UV radiation that would otherwise reach the earth's surface and cause harm. Unfortunately, this protective layer has developed holes, which, according to Dr. Parker, is due to chemicals, including chlorofluorocarbons (CFCs), which were developed by DuPont in the 1930s and used widely as refrigerants and in industry.

CFCs last long in the atmosphere and act as greenhouse gases in a way that is much more potent than carbon dioxide, according to Dr. Parker.

"When conditions are right, especially over the Poles and, particularly, over Antarctica, these compounds cleave the ozone in the stratospheric layer and break it down. The result is the emergence of these large holes over the Poles that appear seasonally," Dr. Parker said. "Consequently, we have had a marked increase in skin cancer rates globally and this is especially problematic for places like Australia and New Zealand whose geographic proximity to those large ozone holes in the South Pole is substantial."



"Exposure to air pollution can trigger a number of cascades in skin, including through the aryl hydrocarbon receptor, which can lead to carcinogenesis."

This only scratches the surface of how climate change can impact skin cancer. The impact in the United States is not universal and is complex. Some regions of the country are more vulnerable than others. For example, wildfires in the West, caused by excessive heat and drought, impact air quality across the U.S.

Interestingly, climate change is disproportionately affecting Black, Hispanic, and other disadvantaged minority populations, Dr. Parker noted. Many in those populations tend to live in "urban heat islands," near factories in cities full of concrete and asphalt but few trees.

There are ways in which dermatologists can get involved from a sustainability standpoint. "The American Academy of Dermatology (AAD) has a number of resources, including our Expert Resource Group on Climate and Environmental Affairs," Dr. Parker said. "Another easy step is to make our offices more sustainable by using the My Green Doctor tool, which is free to AAD members." ◈

By Lisette Hilton

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DISCLOSURE

Dr. Parker reported no relevant disclosures.

EDITOR'S NOTE: Dr. Parker also presented on the topics climate science and the health effects from climate change and climate change and dermatology at a Texas Dermatological Society meeting earlier this year.

Psoriasis update

With Jashin J. Wu, MD, FAAD, Wilson Liao, MD, and Amy Paller, MD

FACULTY PRESENTING AT THE INAUGURAL SYMPOSIUM FOR INFLAMMATORY SKIN DISEASE VIRTUAL MEETING IN APRIL 2021 SHARE PSORIASIS PEARLS, HIGHLIGHTS, AND UPDATES.

JASHIN J. WU, MD, FAAD
Founder and Course Director
Symposium for Inflammatory Skin Disease and
Founder and CEO of the Dermatology Research and Education Foundation
Irvine, California

NEW GUIDELINE TAKEAWAYS

Jashin J. Wu, MD, FAAD, a member of the American Academy of Dermatology/National Psoriasis Foundation's Psoriasis Guidelines Committee, presented highlights from the 6 published updated psoriasis guidelines in 2019 to 2021.

"The previous psoriasis guidelines were from 2008 to 2011 and 10 years is a long time for medical advances. There are many changes in the latest 6 updates," noted Dr. Wu.

Dr. Wu's takeaway points from each of the guideline updates are as follows:

GUIDELINE: Care for management and treatment of psoriasis with topical therapy and alternative medicine modalities for psoriasis severity measures.[1]

"In this update, we recommend use of off-label tacrolimus for facial psoriasis or inverse psoriasis for up to eight weeks," he said.

GUIDELINE: Care for the management of psoriasis with systemic nonbiologic therapies.[2]

"It is not necessary to do a liver biopsy in patients who have had more than 3.5 or 4

> Uveitis is not a big risk in children with psoriasis. But uveitis may occur in children with psoriatic arthritis, plus or minus psoriasis."

cumulative grams of methotrexate in their lifetime. To prevent liver biopsies, we can now do liver imaging tests," Dr. Wu said.

GUIDELINE: Management and treatment of psoriasis in pediatric patients.[3]

"Uveitis is not a big risk in children with psoriasis. But uveitis may occur in children with psoriatic arthritis, plus or minus psoriasis," he noted.

GUIDELINE: Care for the management and treatment of psoriasis with phototherapy.[4]

"We found that the pulse dye laser is effective for nail psoriasis, and monthly pulse dye laser is more effective than twice weekly excimer laser for nail psoriasis," Dr. Wu said.

GUIDELINE: Care for the management and treatment of psoriasis with biologics.[5]

"I would say the most important point is if patients are not at high risk for tuberculosis (TB) and are not on a tumor necrosis factor (TNF) inhibitor, they do not need to get annual TB testing anymore," he said.

GUIDELINE: Management and treatment of psoriasis with awareness and attention to comorbidities.[6]

"There is some data from my group and others that seems to indicate that patients on biologics may improve their risk of major adverse cardiovascular events (MACE)," Dr. Wu said. "Most of that data is for TNF inhibitors."

WILSON LIAO, MD
Professor of Dermatology and Director of the Psoriasis and Skin Treatment Center
University of California San Francisco, California

SCALP AND NAIL PSORIASIS

Wilson Liao, MD, presented an update on scalp, nail, and inverse psoriasis.

There is increasing recognition that scalp and nail psoriasis are very important to the patient experience and therefore should be treated adequately. A recent publication from the International Psoriasis Council advocates that psoriasis patients with special site involvement, including scalp and nail, should be eligible for systemic therapies as first-line agents," said Dr. Liao.[7]

Scalp and nail involvement is common among patients with psoriasis in typical locations, including the trunk and extremities.

"Patients with nail psoriasis have a higher frequency of psoriatic arthritis," Dr. Liao said.

Options for treating nail psoriasis depend on how many nails are involved and whether involvement primarily affects the nail bed (e.g., oil drop discoloration, onycholysis, subungual hyperkeratosis) or the nail matrix (e.g., pitting, crumbling of nail plate, leukonychia).

"Therapeutic options include topical therapies, localized injections, and systemic/biologic therapies. Interleukin 17 (IL-17) inhibitors may have the fastest onset of action in nail

psoriasis, though over time the IL-17, IL-23, and TNF-alpha inhibitors all appear to have similar efficacy," Dr. Liao said. "For nail bed disease affecting three or fewer nails, topical corticosteroids or vitamin D/corticosteroid combinations can be used. For the treatment of nail matrix involving three or fewer nails, first-line therapy should be intralesional corticosteroids or methotrexate. For multiple nail disease, the IL-17 inhibitors may have the fastest onset of action for nail psoriasis, though over time the IL-17, IL-23, and TNF-alpha inhibitors all appear to have similar efficacy."[8]

Topical treatments for scalp psoriasis can be divided into two categories: clearing agents (topical steroids +/- calcipotriene) and maintenance/adjunct agents (calcipotriene, tar and salicylic acid shampoos), according to Dr. Liao.

"Refractory patients may be considered for phototherapy, including at-home handheld devices or in-office excimer laser, or biologic agents, such as secukinumab, guselkumab, and apremilast, which have scalp data on their FDA labeling," he said.[9]

> "There is increasing recognition that scalp and nail psoriasis are very important to the patient experience and therefore should be treated adequately."

PEDIATRIC PSORIASIS PEARLS

Amy Paller, MD, presented on treating kids with psoriasis and offers *The Dermatology Digest* readers these 3 practice pearls.

AMY PALLER, MD
Chair of Dermatology
Northwestern Medicine
Feinberg School of Medicine
Chicago, Illinois

If starting with topical therapy, hit hard with a combination of a super potent steroid and vitamin D3 analogue for the first few weeks. The combination used can be commercially available or a 1:1 mix (in the hand) of compatible ingredients before application," Dr. Paller said. "Although never tested in children, I typically then continue on weekends with the steroid and twice daily vitamin D3 analogue on weekdays."

For sensitive areas, like the face and groin, topical calcineurin inhibitors are Dr. Paller's treatment of choice.

> "The biologics appear safe and most work faster and with better efficacy than methotrexate, but we don't know the long-term safety of biologics and their price is huge compared to methotrexate."

"I tend to go for tacrolimus 0.1% ointment (and often use Goodrx.com to find the cheapest price of the generic formulation for my patients)," she said.

For those who need to advance to systemics, who have at least 10% body surface area, in difficult areas (e.g., areas involving nails), and/or are recalcitrant to topicals, it's about shared decision-making based on access and parental and child concerns about safety, according to Dr. Paller.

"The biologics appear safe and most work faster and with better efficacy than methotrexate, but we don't know the long-term safety of biologics and their price is huge compared to methotrexate," Dr. Paller explained. "We decide on a direction after considering treatment options and their risk-benefit ratio." ◈

By Lisette Hilton

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DISCLOSURES

Jashin J. Wu, MD, served as a consultant for AbbVie, Allergan, Almirall, Amgen, Arcutis, Bristol Myers Squibb, Celgene, Dermira, Dr. Reddy's Laboratories, Eli Lilly and Company, Janssen Biotech, LEO Pharma, Novartis, Ortho Dermatologics, Pfizer, Inc, Promius Pharma, Regeneron, Sun Pharmaceutical Industries, Ltd.. UCB, and Valeant Pharmaceuticals North America, LLC receiving fees and/or honoraria; as a speaker for AbbVie, Celgene, Novartis, Regeneron, Sanofi Genzyme, Sun Pharmaceutical Industries Ltd, UCB, and Valeant Pharmaceuticals North America, LLC receiving honoraria; and as a principal/investigator for AbbVie, Amgen, AstraZeneca, Boehringer Ingelheim, Coherus Biosciences, Dermira, Eli Lilly and Company, Janssen Pharmaceuticals, Inc, Merck & Co, Inc, Novartis, Pfizer, Inc, Regeneron, Sandoz (a Novartis Company), and Sun Pharmaceutical Industries, Ltd receiving research and/or grant funding.

Wilson Liao, MD, has received research grant funding from AbbVie, Amgen, Janssen Pharmaceuticals, Inc, LEO Pharma, Novartis, Pfizer, Inc, Regeneron, and TRex Bio.

Amy S. Paller, MD, is a consultant with honorarium for AbbVie, Almirall, Llc, AnaptysBio, Inc, Boehringer Ingelheim, Eli Lilly and Company, Exicure, Novartis, Pfizer, Inc, and UCB, as well as an investigator for AbbVie, Eli Lilly and Company, Janssen Biotech, and UCB. She is also on the Data Safety Monitoring Board for AbbVie and Galderma.

The benefits of stress

MODERATE AMOUNTS MAY BOOST BRAIN

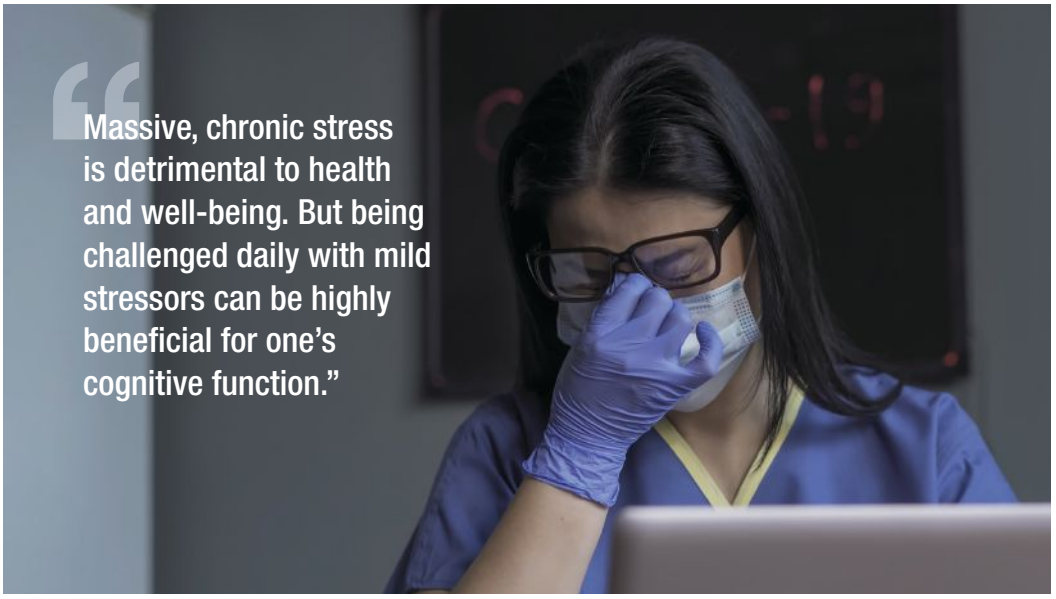
With Susan T. Charles, PhD

SUSAN T. CHARLES, PhD
Professor of Psychological Science and Nursing Science, University of Southern California
Irvine, California

A little stress might not be such a bad thing. A study that my colleagues and I recently published in *Emotion* shows that moderate amounts of daily stress may signal an active, engaged lifestyle that helps maintain cognitive function long-term.[1]

We randomly selected 2711 respondents who had taken part in other surveys—the second wave of the Midlife in the United States study and a companion project, The National Study of Daily Experiences. For 8 consecutive evenings, we conducted short telephone interviews regarding respondents' daily stressors, use of time, and feelings. Before these interviews, participants completed the Brief Test of Adult Cognition by Telephone, which takes around 20 minutes.

The bottom line? Respondents who reported stress (90%) were more likely to have chronic health issues, and their mood during the day was not as positive. But the 9.74% of respondents who reported no stress showed lower cognitive capacity—as if they were 8.21 years older, by our calculations. The stress-free group had a narrower range of activities and social partners and was less likely to report giving or receiving emotional support. Demographically, these subjects were older, more likely male,



> "The most commonly reported stressor was avoiding an argument."

and less likely to be married or working. The no-stress group also reported fewer physical symptoms, fewer positive events, a higher level of positive affect, and a lower level of negative affect.

It was important for us to examine stressors—such as arguments and deadlines—that most people encounter in their daily lives. In previous studies, we found that such events predict physical and mental health 10 years later.[2,3] More specifically, how people respond to everyday stress matters. When we followed people over 10 years, the ones who reacted most strongly to daily stressors were more likely to develop chronic physical or affective illness.[2,3]

Some of the most common stressors reported in the current study were social stressors. People can be messy; we often argue. In fact, the most commonly reported stressor was avoiding an argument. One can imagine in this time of political upheaval in this country, a good friend may say something you disagree with, but you think to yourself, "I'm not going to convince this person of any other viewpoint. I'm not going to say anything." These are the kinds of stressors we addressed.

A key study strength is that we limited the definition of stressors to objectifiable external events that most people would experience as stressful. That is different than simply feeling down or sad all day. There had to be something that happened that caused someone to consider it a stressful situation. Additional study strengths include its large sample size, with subjects across America from their 20s to their 80s.

Our study also had weaknesses, including its self-reported nature. Moreover, it is impossible to tell from our research if the people who experienced stress are truly putting themselves out there in a more complex world, leading to improved cognitive functioning, or if people simply report and recall stress differently. Two people could experience the same stressor, for example, and one of them may forget about it 5 minutes later.

Nevertheless, for doctors, our results support engaging in challenges, some of which bring stress. Clearly, massive, chronic stress is detrimental to health and well-being. But being challenged daily with mild stressors can be highly beneficial for one's cognitive function. This conflicts with what we are often told, which is to avoid stress at all costs. It might be annoying to talk to a certain person. Or you might become a volunteer, and it might put you out a little bit. But it also might come with some cognitive gains in later life. ◈

By John Jesitus

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DISCLOSURES:

Dr. Charles reports no relevant financial interests.

MELANOMA *IN SITU*: Short-term complications favor Mohs

With Todd E. Schlesinger, MD

TODD E. SCHLESINGER, MD
Director of the Dermatology & Laser Center of Charleston and the Clinical Research Center of the Carolinas
Charleston, South Carolina

"Dermatologists are always looking for the safest, most effective treatments for skin cancers such as melanoma *in situ* (MIS). According to a study presented at the American Academy of Dermatology VMX, Mohs micrographic surgery (MMS) might provide a better short-term side effect profile than the current standard, wide local excision (WLE),[1]" said Todd E. Schlesinger, MD.

Regarding overall survival and recurrence rates, prior research has shown that MMS may provide results equivalent to those of WLE for MIS.[2,3]

"However, we do not know whether WLE or MMS leads to a higher risk of negative short-term outcomes," said Dr. Schlesinger, Director, Dermatology & Laser Center of Charleston and the Clinical Research Center of the Carolinas.

To answer this question, the authors performed a retrospective cohort study using TriNetx, a real-time international database including 61 million patient records from 2006 to 2020. Using current procedural terminology (CPT) and international classification of diseases, tenth revision, clinical modification (ICD-10) codes, they calculated adjusted risk ratios (ARRs) for 30-day complications associated with MMS and WLE for MIS.

A matched cohort of 9390 patients revealed that the MMS group experienced significantly lower rates of 4 sequelae in particular:

- Cellulitis/lymphangitis (ARR 0.38; 95% confidence interval/CI, 0.24-0.61)
- Cutaneous infection (ARR = 0.52; 95% CI, 0.39-0.69)
- Wound dehiscence (ARR = 0.48; 95% CI, 0.27-0.84)
- Hematoma (ARR = 0.44; 95% CI, 0.21-0.91)

Rates of other postsurgical complications such as pain, pruritus, and hypertrophic scarring were similar between the 2 treatments.

"The key take-home of this study is that Mohs surgery should be considered a viable option for treating MIS even though the current standard of care is wide local excision," lead author

> Mohs is a much more time-consuming and involved procedure than wide local excision, and this is why Mohs has not been widely adopted for MIS."

Rahul Raiker, BS, told *The Dermatology Digest*. He is a medical student at West Virginia University School of Medicine.

Given the rise in melanoma rates in recent years, dermatologists may consider shifting to Mohs surgery for MIS as it provides a similar cure rate while being cost-comparable,4 noted co-author Haig Pakhchanian, BS. He is a medical student at George Washington University School of Medicine and Health Science.

> The key take-home of this study is that Mohs surgery should be considered a viable option for treating MIS even though the current standard of care is wide local excision."

"However," added Mr. Raiker, "Mohs is a much more time-consuming and involved procedure than wide local excision, and this is why Mohs has not been widely adopted for MIS."

The study is interesting because in some cases, MMS may produce a smaller defect than WLE. "It makes sense that the complication rate might be lower, adding validity to what we might expect, provided we are confident that MMS can achieve a consistent clear margin," said Dr. Schlesinger, "Additionally, MMS might permit a wider variety of closure options because knowing that the margins are clear allows for more creative closure techniques."

Therefore, dermatologists may wish to consider the size of the defect that may result from removing MIS by WLE. "Particularly," said Dr. Schlesinger, "when the tumor is in an area in which WLE may create a defect that is difficult to close without excessive tension, or where the skin quality might not be optimal. These factors increase complication rates, and MMS may add value in such situations."

Study strengths include its large, national sample size, with data from multiple centers, and the robust statistical methods used. As a retrospective study, authors allow, data reporting could be subject to bias and coding errors.

Going forward, Raiker and colleagues call for additional studies—especially subgroup comparisons of MIS in different body locations—to validate their findings. Assessing complication severity could also be an avenue for future studies, Mr. Raiker said.

"Additionally, future research perhaps could compare defect sizes between cohorts to see if MMS closures were indeed smaller or under less tension," said Dr. Schlesinger. "This would help us understand if it was the MMS itself that resulted in the difference we see, or if it was simply related to closure dimensions." ◈

By John Jesitus

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DISCLOSURES

Dr. Schlesinger, Mr. Raiker, and Mr. Pakhchanian report no relevant financial interests.

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WHO SHOULD NOT TAKE ORACEA CAPSULES?
Do not take ORACEA Capsules if you are allergic to doxycycline or other medicines in the tetracycline class. Ask your doctor or pharmacist for a list of these medicines if you are not sure.

WHAT SHOULD I TELL MY DOCTOR BEFORE TAKING ORACEA CAPSULES?
Before you take ORACEA Capsules tell your doctor if you:
- have kidney problems.
- have liver problems.
- have diarrhea or watery stools.
- have vision problems.
- have had surgery on your stomach (gastric surgery).
- have or had a yeast or fungal infection in your mouth or vagina.
- have any other medical condition.
- are pregnant or planning to become pregnant. ORACEA Capsules may harm your unborn baby. Taking ORACEA Capsules while you are pregnant may cause serious side effects on the growth of bone and teeth of your baby. Stop taking ORACEA Capsules and call your doctor right away if you become pregnant while taking ORACEA Capsules.
- are breastfeeding or plan to breastfeed. ORACEA Capsules can pass into your breast milk and may harm your baby. Talk to your doctor about the best way to feed your baby if you take ORACEA Capsules. You and your doctor should decide if you will take ORACEA Capsules or breastfeed. You should not do both.

You should not take ORACEA Capsules if you are male with a female sexual partner who plans to become pregnant at any time while you are being treated with ORACEA Capsules.

Tell your doctor about all of the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements. ORACEA Capsules and other medicines can affect each other causing serious side effects.

Especially tell your doctor if you take:
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- a blood thinner medicine
- a penicillin (antibacterial medicine).
- proton pump inhibitors or antacids that contain aluminum, calcium, or magnesium.
- products containing iron or bismuth subsalicylate.
- a medicine taken by mouth that contains isotretinoin or acitretin.
- a medicine to treat seizures, such as carbamazepine or phenytoin.

Ask your doctor or pharmacist for a full list of your medicines, if you are not sure. Know the medicines you take. Keep a list of your medicines and show it to your doctor and pharmacist when you get a new medicine.

WHAT ARE THE POSSIBLE SIDE EFFECTS OF ORACEA CAPSULES?
ORACEA Capsules may cause serious side effects, including:
- **Harm to an unborn baby. See "What should I tell my doctor before taking ORACEA Capsules?"**
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- **Intestine infection (pseudomembranous colitis).** Pseudomembranous colitis can happen with most antibiotics, including ORACEA Capsules. Call your doctor right away if you get diarrhea or bloody stools.
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- **Discoloration (hyperpigmentation).** ORACEA Capsules can cause darkening of your skin, scars, teeth, gums, nails, and whites of your eyes.
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The most common side effects of ORACEA Capsules include: soreness in the nose and throat, diarrhea, sinus infection, stomach (abdominal) bloating or pain, fungus infection, high blood pressure (hypertension), flu-like symptoms, and change in certain blood tests.

Tell your doctor if you have any side effect that bothers you or does not go away. These are not all the possible side effects of ORACEA Capsules. For more information, ask your doctor or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088. You may also report side effects to GALDERMA LABORATORIES, L.P. at 1-866-735-4137.

HOW SHOULD I TAKE ORACEA CAPSULES?
- Take ORACEA Capsules exactly as prescribed by your doctor. Taking more than your prescribed dose may increase your chance of side effects, including the chance that bacteria will become resistant to ORACEA Capsules.
- Take ORACEA Capsules 1 time a day in the morning on an empty stomach.
- You should take ORACEA Capsules at least one hour before or two hours after a meal.
- Take ORACEA Capsules with enough fluid to completely swallow the capsule and to lower your risk of getting irritation or ulcer in your esophagus. Your esophagus is the tube that connects your mouth to your stomach.
- If you took too much ORACEA Capsules, call your doctor right away.
- Your doctor may do blood tests during treatment with ORACEA Capsules to check for side effects.

WHAT SHOULD I AVOID WHILE TAKING ORACEA CAPSULES?
- Avoid sunlight or artificial sunlight, such as a tanning booth or sunlamp. You could get severe sunburn. Use sunscreen and wear clothes that cover your skin while out in sunlight.

HOW SHOULD I STORE ORACEA CAPSULES?
- Store ORACEA Capsules at room temperature between 59ºF to 86ºF (15ºC to 30ºC).
- Keep ORACEA Capsules in a tightly closed container.
- Keep ORACEA Capsules inside container and out of light.

Keep ORACEA Capsules and all medicine out of the reach of children.

GENERAL INFORMATION ABOUT ORACEA CAPSULES
Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. Do not take ORACEA Capsules for a condition for which it was not prescribed. Do not give ORACEA Capsules to other people, even if they have the same symptoms you have. It may harm them.

This Brief Summary summarizes the most important information about ORACEA Capsules. If you would like more information, talk with your doctor. You can also ask your doctor or pharmacist for information that is written for health professionals.

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Active ingredient: doxycycline. Inactive ingredients: hypromellose, iron oxide red, iron oxide yellow, methacrylic acid copolymer, polyethylene glycol, Polysorbate 80, sugar spheres, talc, titanium dioxide, and triethyl citrate.

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Attacks on healthcare workers during COVID-19

With Terry Kowalenko, MD

TERRY KOWALENKO, MD
Professor and Chair, Emergency Medicine
Medical University of South Carolina, Charleston

HOWARD LARKIN, MD
Freelance writer and editor from Willow Springs, Illinois

Stress from COVID-19 has likely exacerbated assaults on healthcare workers.

Terry Kowalenko, MD, a Professor and Chair of Emergency Medicine at the Medical University of South Carolina (MUSC) in Charleston, suspects that COVID stress, coupled with the stress on healthcare workers, creates a slightly lower threshold for igniting aggression.

"However, I am not sure there is anything fundamentally different about COVID," he said. "Violence in the healthcare field is such a prevalent problem that has been going on for decades. In fact, healthcare workers are 6 times more likely to suffer a physical assault than any other profession. And very little has changed."

Furthermore, physical assaults on healthcare workers that likely result in some form of injury are underreported, according to Dr. Kowalenko, who has published multiple articles on workplace violence, primarily occurring in the emergency room. "We also know that people are pushed, shoved, punched, and spit on that do not require medical care," he said.

Dr. Kowalenko said healthcare workers should be extremely alarmed about workplace violence. "They need to be aware, vigilant, and cautious at all times."

Data collected by Dr. Kowalenko and colleagues from several years ago showed that physical threats to healthcare workers were perpetrated by men two-thirds of the time; physical assaults were about equally likely to be committed by men and women.

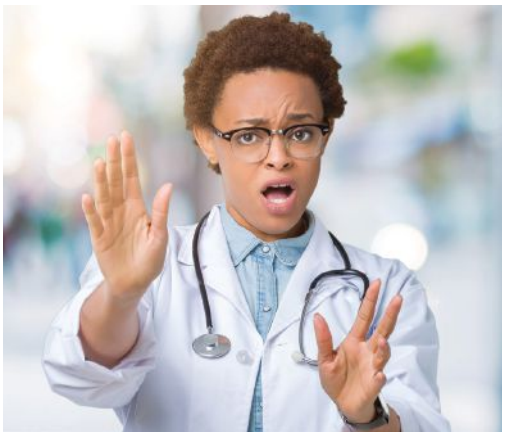
There are numerous ways to reduce assaults on healthcare workers: recognizing a potentially violent patient, de-escalating techniques, improving hospital security, re-designing a facility for enhanced safety, and enacting laws that protect healthcare workers.

"The issue with violence in the healthcare setting is that everyone has to learn," Dr. Kowalenko said. "The security officer needs to recognize potentially violent patients by the patient's own body language and speech. The clerical staff, the technicians, the nurses, and the doctors also need to become knowledgeable."

According to Dr. Kowalenko's research, providers suffer the least amount of violence, while those who spend more time in front of a patient, such as a technician or a nurse, have a higher incidence of being either verbally or physically assaulted. "We also know that patients who have psychiatric illness and patients who are intoxicated with whatever substance, or potentially the combination of the two, present the highest risk for assault," he said.

One of the most effective de-escalating techniques is simply to determine what the patient or accompanying person needs. "It might be keeping them informed," Dr. Kowalenko explained. "A lot of times, people will escalate

> "Violence in the healthcare field is such a prevalent problem that has been going on for decades. In fact, healthcare workers are 6 times more likely to suffer a physical assault than any other profession."



because they are waiting a long time for whatever they want, such as knowing the condition of the patient or pain medication."

Offering a dark area with less stimulation or suggesting food can also calm a person.

"Attacks can happen anywhere," said Howard Larkin, a freelance writer and editor from Willow Springs, Illinois, who often writes about the healthcare industry and is the author of a recent article in *JAMA* entitled "Navigating Attacks Against Health Care Workers in the COVID-19 Era."[1]

Although Larkin contacted sources from several medical specialties to gauge the level of attacks, he "was surprised to find out there was not much current research," he said. "All the studies I cite were published prior to the pandemic. This was a point of frustration for some of the researchers I spoke to as well. They sensed things were getting worse, but they did not have any hard data."

Nonetheless, a guide published by the International Committee of the Red Cross (ICRC) notes "alarming incidents of health workers being stigmatized, ostracized, harassed, or threatened for allegedly spreading the virus."

Online harassment has definitely increased. "There seems to be some fear of contagion," Larkin said. "People are afraid that healthcare workers might be infected with COVID. Also, there is resentment in enforcing public health rules like masks and physical distancing."

To combat online misinformation and spiteful responses, healthcare workers can join with others to educate and advocate for evidence-based mitigating solutions on social media.

Reporting attacks is important. "If it is not reported, it cannot be addressed," Larkin emphasized. "Where and what types of violence are occurring? What happens in a psych unit is very different from what happens in a medical-surgical unit."

Given that some research indicates that most violence occurs after 8 p.m., strictly enforcing hospital visiting hours can help.

Likewise, "basically anything that you can use to throw or attack should not be available for patients to grab hold of," Larkin said. "Some places have replaced wheeled intravenous IV poles with poles attached to beds, so they cannot be grabbed or used as weapons."

Panic buttons can be downloaded onto a desktop computer or mobile device, including a smart watch. These devices can also be programmed to interface with security, local 911, incident command centers, or anyone with a smartphone.

Healthcare facilities should develop a violence prevention and mitigation program, Larkin advises.

"Be ready for these attacks, and get ready for them if you have not given it some thought," he said. ◈

By Bob Kronemyer

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DISCLOSURES:

Dr. Kowalenko reports no relevant financial interests.
Howard Larkin reports no relevant financial interests.

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Epidemiologic analysis suggests COVID-19 unlikely to cause secondary chilblains

With Patrick E. McCleskey, MD

PATRICK E. MCCLESKEY, MD
Department of Dermatology
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In a recently published article, Dr. McCleskey and colleagues reported findings from an epidemiologic analysis that investigated the incidence of chilblains before and during the COVID-19 pandemic.[1]

"Certainly cases of chilblains developing after COVID-19 have been reported, and this temporal association suggests that the inflammatory dermatosis can occur secondary to the viral infection. However, the results of our retrospective cohort study designed to explore the association between the two conditions indicate that chilblains remains idiopathic until proven otherwise," said Patrick E. McCleskey, MD, Department of Dermatology, Kaiser Permanente Oakland Medical Center, Oakland, California.

Chilblains cases were identified among members of the Kaiser Permanente Northern California system health plan. The review found 780 cases of chilblains diagnosed during the pandemic between April 1, to November 30, 2020, and 539 cases with a chilblains diagnosis made during the prepandemic period that included the same calendar days for the years 2016 to 2019.

Consistent with previous reports indicating a rise in chilblains cases during the pandemic, the annual incidence of chilblains was five-fold higher in the pandemic versus the prepandemic period (28.6 vs. 5.2 per 100,000 person years). However, considering the subgroup of patients with chilblains during the pandemic who underwent PCR testing for COVID-19 (n = 456), only 17 (3.7%) tested positive for the SARS-CoV-2 virus and only 9 (2.0%) had a positive COVID-19 test within the 6 weeks before they were diagnosed with chilblains.

> "Perhaps improved testing methods to detect past exposure to the virus would result in the identification of more cases of chilblains secondary to COVID-19. Still, we believe further study to investigate a potential relationship is not warranted."

Furthermore, Spearman rank correlation coefficient analyses performed to compare the number of cases of COVID-19 in a particular month and chilblains in the following month for 23 geographic locations showed only a very weak geographic and temporal association.

"If COVID-19 had been causing the cases of chilblains, the two conditions should have occurred in the same geographic locations at the same time," said Dr. McCleskey.

Accounting for the increase in incidence

In agreement with authors of previously published papers reporting a rise in cases of chilblains during the COVID-19 pandemic, Dr. McCleskey and colleagues believe that the phenomenon is largely explained by changes in behavior that occurred during the pandemic rather than an etiologic relationship between COVID-19 and chilblains.

"People are staying home more during the pandemic and going without shoes," he said.

Looking beyond the COVID-chilblains association

Due to a lack of access to reliable antibody testing for the SARS-CoV-2 virus during the early pandemic period, only about 60% of the patients with chilblains underwent PCR testing.

"Perhaps improved testing methods to detect past exposure to the virus would result in the identification of more cases of chilblains secondary to COVID-19. Still, we believe further study to investigate a potential relationship is not warranted," said Dr. McCleskey.

"Other skin manifestations of COVID-19 that are found in severe cases, such as acral ischemia, necrosis, and microthrombi, are potentially much more important to study," he noted. "Fortunately, these serious problems develop in fewer patients."

The analyses of demographics of the patients included in the study both characterized differences between patients who developed chilblains before and during the pandemic and described the features of patients with chilblains who tested positive for COVID-19. Data from the latter analysis showed that the incidence of COVID-19 among Latin patients was three-fold higher than among Asian Americans or Whites and double that seen among African Americans.

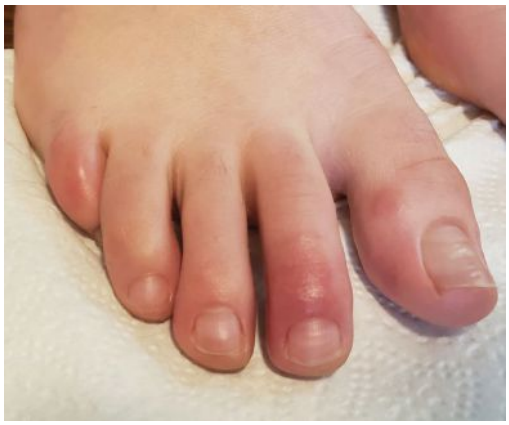

Photo courtesy of Patrick E. McCleskey, MD

Figure 1. The proportion of patients with chilblains involving the feet only was significantly higher during the pandemic than before the pandemic (81.7% vs. 58.5%); 94% of patients with chilblains during the pandemic reported going without shoes at home.

"Epidemiological studies like ours provide the opportunity to find disparities in our populations that require additional outreach and public health efforts in the broader context of this pandemic," Dr. McCleskey said.

By Cheryl Guttman

"Other skin manifestations of COVID-19 that are found in severe cases, such as acral ischemia, necrosis, and microthrombi, are potentially much more important to study."

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DISCLOSURES:

No relevant disclosures were reported.

Botox and wound healing

With Dinesh Maini, MD

DINESH MAINI, MD

Medical Director
Zenith Cosmetic Clinic
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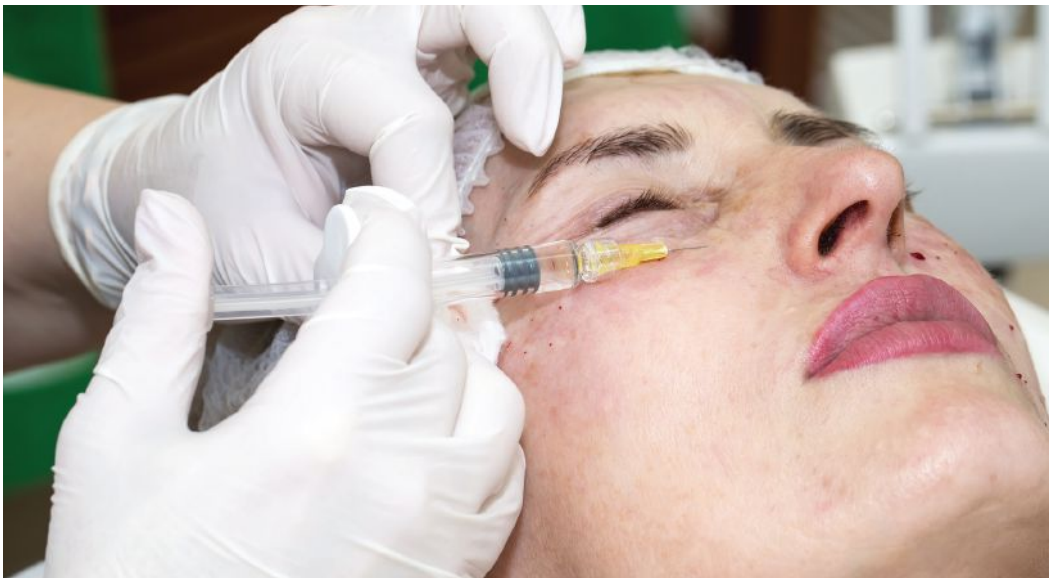
Wounds from minor dermatological surgeries injected intradermally with botulinum neurotoxin Type A (BoNT/A, Botox, Allergan) seem to heal faster and better than wounds not treated with adjuvant BoNT/A, according to Dinesh Maini, MD, Medical Director of the Zenith Cosmetic Clinic in Nottingham, United Kingdom, who recently published results of a series of his cases in the *Journal of Drugs in Dermatology (JDD)*.

"We are talking small numbers, and this is more of an observational study," Dr. Maini said. "But I observed scarring was quite dramatically reduced in those patients who had Botox in the wound. The wounds also healed quicker in those patients who had Botox in the wound. The difference seemed to be quite noticeable—almost months quicker in some patients."

Typically, Dr. Maini uses BoNT/A as an adjunct in patients undergoing excision of intradermal naevi or sebaceous cysts in scar-prone areas, such as the deltoid or sternum, or if he must do a deep excision.

"When you treat on the face, healing tends to be pretty good. You do not really need any help if your stitching technique is up to scratch," he said.



> While there has been some research that suggests there may be something more to this, I would be very cautious about adopting it based on an experience with a few patients."

While he feels comfortable using the approach described in the paper and currently has experience with about 100 patients, Dr. Maini thinks more studies need to be performed before it becomes widespread practice.

"I do not think we can say anything based on such a small case series. We need to do pilot studies and proper full randomized controlled trials," he said. "While there has been some research that suggests there may be something more to this, I would be very cautious about adopting it based on an experience with a few patients."

Still, using BoNT/A intradermally in wounds appears to be safe. Dr. Maini said he has not seen one side effect or complication from the adjuvant injection.

"That is the beauty of it. We are using relatively small doses of only a few units on the trunk and limbs," he said.

Dr. Maini has a few ideas about why BoNT/A might help wounds heal faster and better.

"Basically, I think Botox downregulates fibroblasts that are overactive," he said. "I think the second thing, and probably the most important factor, is that Botox seems to reduce tension on the wound. You can get lots of contraction generated around the wound and that constant pulling and pushing might upset the healing process. Botox might reduce that."

Since Dr. Maini only uses 5 to 7 units of BoNT/A to treat most wounds, the costs to add it to an excisional procedure should be minimal, he noted.

"But we would have to do a dose-response study to determine when one gets the best result. We need those answers, too," Dr. Maini said.

Dr. Maini injects BoNT/A around the whole wound edge and has found that intradermal injections appeared to be more effective than subdermal.

"It does seem that those patients that got Botox in certain areas have not scarred as badly as I would have expected. And it seems to hold true. I have not come across anyone with Botox who had an awful result," he said.

By Lisette Hilton

REFERENCE:

Maini D. Botulinum Neurotoxin Type A as an Adjuvant to Reduce Scarring After Dermatological Surgery. *J Drugs Dermatol.* 2021 Jun 1;20(6):677-680. doi: 10.36849/JDD.2021.5807. PMID: 34076390.

DISCLOSURE:

Dr. Maini reports no relevant disclosures.

> When you treat on the face, healing tends to be pretty good. You do not really need any help if your stitching technique is up to scratch."

Conference Bytes

Dr. Marcia Driscoll discusses treatment guidance for acne, psoriasis, melanoma, infections, and common dermatoses in the pregnant dermatology patient

Treating skin conditions in the pregnant patient

"[The Pregnant Pause] has been a successful forum for a number of years, I believe, because all new physicians in general, outside of OB/GYN, perhaps feel a little bit uncomfortable with managing pregnant patients because… we have two people to worry about," said Marcia Driscoll, MD, Associate Professor of Dermatology, University of Maryland School of Medicine, Baltimore, Maryland. "And we're worried about not only managing the condition in the patient, but now what will be the effect [on the fetus] if we use medications."

Dr. Driscoll, Director of the The Pregnant Pause: How to Evaluate and Treat your Pregnant Patients at AAD/VMX 2021, said five areas were discussed in the forum:

1. ACNE – by Jonette Keri, MD, PhD, University of Miami, Florida

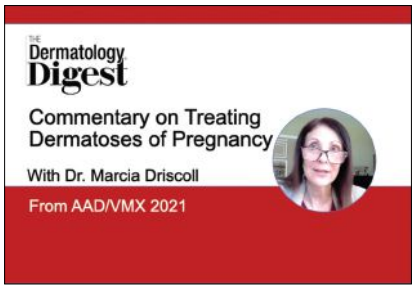
2. PSORAISIS – by Bruce Strober, MD, PhD, Yale, New Haven, Connecticut

3. NEVI AND MELANOMAS – by Jane Grant-Kels, MD, UConn Health, Farmington, Connecticut

4. INFECTIONS – by Jenny Murase, MD, University of California, San Francisco

5. DERMATOSES OF PREGNANCY – by Dr. Driscoll herself

Overall, each presenter addressed the things dermatologists need to keep in mind with pregnant patients and certain skin conditions, including special treatment considerations or limitations.



MARCIA DRISCOLL, MD, is Associate Professor of Dermatology, University of Maryland School of Medicine.

WATCH — https://thedermdigest.com/video/treating-skin-conditions-in-the-pregnant-patient

Treating acne in pregnant patients

In terms of acne, Dr. Keri said safety data is lacking for about 80% of medications, in general, according to Dr. Driscoll. What is known is that benzoyl peroxide, topical erythromycin, topical azelaic acid, glycolic acid washes are safe for mild acne.

For more severe acne, oral amoxicillin and cyclosporine are safe.

If in doubt, particularly with oral medications, it is strongly advised to consult with the patient's OB/GYN.

While retinoids are not typically used in pregnancy, Dr. Keri cited a study that showed inadvertent exposure to topical tretinoin in the first trimester does not affect the baby born to those women.

Treating psoriasis in pregnant patients

Using topicals to treat small areas of psoriasis is safe in pregnant women because there is minimal absorption, according to Dr. Strober's talk.

For more extensive psoriasis, narrow band UVB can be used, but because it degrades folic acid, additional folic acid supplementation may be necessary.

If systemic agents are necessary, TNF alfa inhibitors appear to be safe. Certolizumab, in particular, includes

"For more severe acne, oral amoxicillin and cyclosporine are safe."

the polyethylene glycol molecule, which does not allow the drug to cross placenta.

There is some concern with other biologics crossing the placenta in third trimester. Use of these warrants a conversation with the patient's OB/GYN.

Dr. Strober's second choice is cyclosporine.

Treating nevi and melanoma in pregnant patients

It's important to recognize that one-third of women who develop melanoma are women of child bearing age, said Dr. Driscoll. Dr. Grant-Kels discussed two myths:

MYTH #1 - It is normal for moles to change during pregnancy.

The reality is, any mole that changes during pregnancy should be biopsied, just as it would be in a nonpregnant patient. However, women with a history of atypical moles should be monitored more frequently during pregnancy.

MYTH #2 - Women who develop melanoma during pregnancy have a poor prognosis.

Actually, pregnant women who are diagnosed with stage 1 melanoma have the same prognosis as their non-pregnant counterparts. "In the 1950s, they actually would propose terminating pregnancies in women that had melanoma, or even possibly sterilizing women that had atypical moles… and worried they may become pregnant," said Dr. Driscoll. There isn't enough data about prognosis for later stages of melanoma, however.

"In the 1950s, they actually would propose terminating pregnancies in women that had melanoma, or even possibly sterilizing women that had atypical moles…"

Treating infections in pregnant patients

Dr. Murase discussed the safe treatment of infections and infestations in the pregnant patient by classes:

- Key anti-microbial agents include penicillins, 1st and 2nd generation cephalosporins, and erythromycin.
- The anti-viral agent aciclovir is safe.
- For anti-fungals, there is an overall concern with systemic agents. Some topicals, including azoles, are safe.
- For scabies, permethrin 5% and oral ivermectin are both safe.

Treating dermatoses of pregnancy

The most common dermatoses of pregnancy are atopic eruption (eczema or papular eruption) and polymorphous eruption in pregnancy (PEP). PEP, said Dr. Driscoll, is most common in first-time pregnancies. Both are pruritic. The mainstay of treatment are topical steroids or a short course of oral steroids may also be used. The antihistamines chlorpheniramine and diphenhydramine are also both safe to use during pregnancy. ◈

Dr. Esther Freeman discusses the complexities of COVID antibodies and what it means to the clinician.

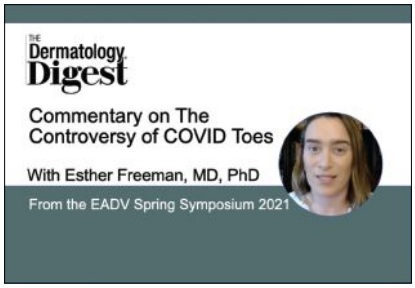
Beyond the COVID toes controversy: understanding the 'why'

Are pernio, or chilblains, linked to COVID-19? If so, why do most patients who present with these lesions test PCR and/or antibody negative? These questions are at the heart of the so-called COVID toes controversy. But, said Esther Freeman, MD, PhD, it's time for dermatologists to move beyond the controversy by understanding the "why."

"I think dermatologists have a key role in really understanding host immune response and in understanding viral control, and in some ways things like COVID toes and other skin manifestations have given us a key by which we can do that," she said.

Very few patients who present with COVID toes test PCR positive for the virus in the nose, but it doesn't mean they didn't have COVID. Considered post acute sequela of COVID-19, it is not surprising that most patients who present with pernio won't have a PCR positive result, said Dr. Freeman.

"This actually makes sense because we've learned over time that pernio, or chilblains, start about one to four weeks after acute infection. So this is not something that shows up the moment you're infected. We know from our data analysis and the registry that only about 15% of patients when they show up with pernio will be PCR positive, even in the setting of SARS-CoV-2."



ESTHER FREEMAN, MD, PHD, is Director of Global Health Dermatology at Massachusetts General Hospital, Harvard Medical School, Chair of Clinical Guidelines at the American Academy of Dermatology (AAD), and a Member of the AAD Dermatology COVID-19 Task Force. She directs the COVID-19 Dermatology Registry, an international effort supported by the American Academy of Dermatology and the International League of Dermatological Societies (ILDS). The registry has over 1000 cases from 40 countries.

WATCH — https://thedermdigest.com/covid-19/beyond-the-covid-toes-controversy

Early in the pandemic, antibody data were generated from hospitalized COVID patients, and there was an expectation that COVID-19 patients overall would have robust antibody responses. But not everyone makes the same antibodies to the COVID-19 virus, if they make antibodies at all.

"It's possible you could have mild COVID-19 and make a big antibody response," said Dr. Freeman, "But we also see a lot of patients who we know—even with PCR proof—had SARS-CoV-2, and they actually just don't mount a significant antibody response. And this is particularly true for our patients with mild COVID-19."

According to Dr. Freeman, patients with COVID toes may make a robust interferon alpha (IFN-α) response, similar to a type I genetic interferonopathy.

"The interferon alpha response isn't necessarily a bad thing. Younger patients tend to have a more robust host immune response and likely make more interferon alpha, and we know that interferon alpha is actually helpful for controlling the virus."

She notes the contrast of COVID toes

continued on page 40

Does molluscum keep him away from his friends?

Not representative of all patients

When left untreated, **symptoms last an average of 13 months and can last for as long as 4 years**.[1-3]

Many dermatologists believe that early treatment of molluscum may[1,2,4,5]:

- Reduce disease progression
- Control the number of lesions and decrease the potential for scarring
- Avoid the spread to other areas of the body or to other people
- Prevent onset and exacerbation of comorbidities such as atopic dermatitis
- Reduce discomfort and itching
- Prevent social exclusion from school or extracurricular activities
- Alleviate anxiety in children and caregivers
- Improve quality of life for patients

References: 1. Silverberg NB. Pediatric molluscum: an update. *Cutis*. 2019;104(5):301-305. **2.** American Academy of Pediatrics. Molluscum contagiosum. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2018 Report of the Committee on Infectious Diseases*. American Academy of Pediatrics; 2018:565-566. https://redbook.solutions.aap.org/redbook.aspx **3.** Olsen JR, Gallacher J, Finlay AY, Piguet V, Francis NA. Time to resolution and effect on quality of life of molluscum contagiosum in children in the UK: a prospective community cohort study. *Lancet Infect Dis*. 2015;15(2):190-195. doi:10.1016/S1473-3099(14)71053-9 **4.** van der Wouden JC, van der Sande R, Kruithof EJ, Sollie A, van Suijlekom-Smit LW, Koning S. Interventions for cutaneous molluscum contagiosum (review). *Cochrane Database Syst Rev*. 2017;5:CD004767. doi:10.1002/14651858.CD004767.pub4 **5.** Silverberg NB. Pediatric molluscum contagiosum: optimal treatment strategies. *Pediatr Drugs*. 2003;5(8):505-512.

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patients who tend to be younger with good outcomes, with patients who have severe COVID-19 and very low IFN-α levels.

"Now this gets even more complicated because there's a couple other things at play. We know now that there's actually these robust T cell responses. So some people are not necessarily relying on their antibody response to control the virus they're relying on their T cell response, and that's not something that's measured in the antibody tests."

The other complexity in patients with pernio who have a robust IFN-α response is that they don't make particularly high antibody levels. If they do, they make IGA antibodies which are not routinely tested.

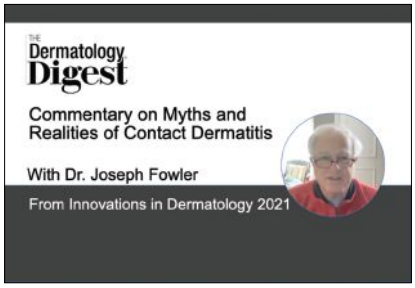
"I think that it's very tempting to have your patient in front of you and you do an antibody test, and it comes back negative. And the temptation is to interpret that as my patient did not have COVID-19. And that's actually not really the interpretation."

The correct interpretation, she says, is, when you tested your patient for IgM or IgG, he or she was making insufficient IgM/IgG at that time.

"You have to understand those tests are looking for something very, very specific," said Dr. Freeman. "Your patient may not be making those antibodies, but that doesn't mean they didn't have COVID-19. I think it's just important for people to realize that." ◈

Dr. Joseph Fowler addresses common contact dermatitis myths to improve accuracy and efficacy in diagnosis and treatment.

Contact dermatitis myths vs. realities



JOSEPH FOWLER, MD, is clinical professor of dermatology, University of Louisville, Division of Dermatology, Louiville, Kentucky

WATCH — https://thedermdigest.com/general-dermatology/contact-dermatitis-myths-vs-realities/

"It used to be that we assumed that almost any eczema in a child was atopic dermatitis… and so, we didn't really think about contact dermatitis as being something that happened that much in children," said Joseph Fowler, MD. "In reality, allergic contact dermatitis is just as common in youngsters, as it is in adults. It turns out that most of the allergens are pretty similar."

In his presentation, "Myths and Realities of Contact Dermatitis," at the Innovations in Dermatology Meeting, Dr. Fowler discussed this myth among others:

- Are individuals with atopic dermatitis more or less prone to developing allergic contact dermatitis?
- Is the prevalence of potential allergens similar in children and adults?

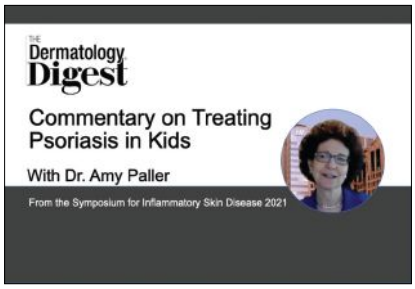
> "It's important to keep in mind that allergic contact dermatitis is possible in children with eczema."

In daily practice, he said, it's important to keep in mind that allergic contact dermatitis is possible in children with eczema, but whether they have eczema or not, a visual evaluation will not confirm whether that child has one or the other or both.

"So our threshold for consideration of allergic contact dermatitis needs to be elevated," he said. ◈

Dr. Amy Paller discusses the knowns and unknowns of the disease process, risk factors, and therapies for pediatric psoriasis.

Current knowledge in pediatric psoriasis



AMY PALLER, MD, is Professor and Chair of Dermatology at Northwestern, Chicago, Ill., and Professor of Pediatrics at the Robert H. Lurie Children's Hospital of Chicago.

WATCH — https://thedermdigest.com/video/current-knowledge-in-pediatric-psoriasis

"There's a huge gap in knowledge about pediatric psoriasis because pretty much anything we know about psoriasis comes from studies in adults in terms of understanding the underlying mechanism," said Amy Paller, MD. "And all of the medications that we use now—and the way that we use them—are strictly taken from studies that have been done in adults without, in general, testing them in children."

In her presentation, "Treating Psoriasis in Kids," at the 2021 Symposium for Inflammatory Skin Disease, Dr. Paller discussed pediatric psoriasis in terms of the current understanding of disease process and risk factors, and therapies.

"Psoriasis does affect children. In fact, about one-third of all adults had their psoriasis start during childhood. And we can see a somewhat linear increase over time with most cases starting during adolescence. We also know that there's a big need to treat and treat appropriately because psoriasis plays a major role in quality of life."

While the underlying mechanism of psoriasis in children is not well understood, research has looked at potential comorbidities based on those observed in adults, in particular the effects of psoriasis on cardiovascular metabolic functioning. According to Dr. Paller, there is some soft evidence of metabolic disease in children. The biggest known risks, however, are inflammatory bowel disease and obesity.

"Very often, regardless of severity, including after adjustment for body mass index, we may not see hyperlipidemia, but we see these abnormalities in lipid functions. We also know that the association with obesity probably is not because of the psoriasis but rather the opposite: that psoriasis is a comorbidity of obesity in children because in studies more than 90% had their obesity at least two years before the onset of the psoriasis, have it at the time of the psoriasis, and still have it two years after."

In terms of treatment for pediatric psoriasis, Dr. Paller said, there hasn't been much clinical research.

"Again we've largely just adopted in the pediatric world what's been done in adults."

While there are studies currently underway looking at vitamin D analogue, including combinations with steroids, biologics hold the most promise. Several are now FDA approved for use in children ages 6 and older, including etanercept, ustekinumab, and most recently secukinumab

"Primarily what I talked about [at the Symposium for Inflammatory Skin Disease] is where we've come with respect to some of the systemic agents… some of them have available for years in adults before they were finally approved by the FDA, but we're getting there."

While methotrexate still has an important place in the dermatologist's armamentarium (it costs less and doesn't require a shot), said Dr. Paller, it takes longer and isn't as effective as the biologics.

"One of the fantastic things about the biologics is how incredibly effective they are." ◈

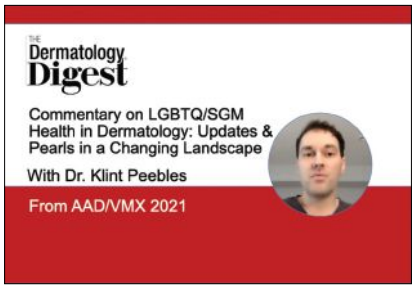
Dr. Klint Peebles discusses skin cancer, acne treatment, isotretinoin, and contraception in the Sexual and Gender Minority patient population.

Pearls for treating the LGBTQ/SGM dermatology patient

According to Klint Peebles, MD, Co-chair of the American Academy of Dermatology's Expert Resource Group on LGBTQ/SGM (Lesbian, Gay, Bisexual, Transgender, Queer/ Sexual and Gender Minority) Health, the group's primary task is to raise awareness of SGM health issues in dermatology, including the unique health needs and health disparities of the population.

In this exclusive video interview with *The Dermatology Digest*, Dr. Peebles specifically discusses issues related to skin cancer, acne treatment, isotretinoin, and contraception in this patient population.

"We're realizing that more individuals are being open about their sexual and gender minority status, more individuals are seeking care, and seeking affirmation not only in health care, but even more socially, culturally,



KLINT PEEBLES, MD, is a dermatologist in Washington DC and suburban Maryland, and Co-chair of the American Academy of Dermatology's Expert Resource Group on LGBTQ/SGM Health and the LGBTQ Health Specialty Section Council of the American Medical Association.

WATCH — https://thedermdigest.com/video/pearls-for-treating-the-lgbtq-sgm-dermatology-patient

and politically," said Dr. Peebles, who presented "LGBTQ/SGM Health in Dermatology: Updates & Pearls in a Changing Landscape," at AAD/VMX 2021. "The population, in terms of its visible numbers, is increasing and accessing care with greater frequency and demanding the excellence in care that we provide to everyone else."

Key to providing excellence in care is understanding what those unique health needs are as well as the conditions dermatologists need to be aware of and comfortable discussing and treating, including the higher risk for skin cancer among sexual minority men and special considerations for the treatment of acne in the transgender and gender diverse population, including the need for generating population-specific data for use of isotretinoin in these patients.

"We know that acne is a significant concern in transmasculine individuals or individuals who are on testosterone for gender affirmation, and acne disproportionately affects that population and that acne can be very severe and often requires treatment with isotretinoin…," said Dr. Peebles. "But there are a lot of considerations in terms of how that medicine is prescribed and how we comply with the requirements of the FDA mandated iPLEDGE program which currently is very insensitive to gender diverse individuals."

Dr. Peebles also discussed a common misconception among the dermatology community for prescribing or talking about contraception when it's needed, as well as and the importance of coordinating with the patient's primary gender-affirming care team. ◈

"We know that acne is a significant concern in transmasculine individuals or individuals who are on testosterone for gender affirmation."

Dr. Jashin J. Wu discusses psoriasis research that examines the association between systemic treatments and COVID-19 infection risk.

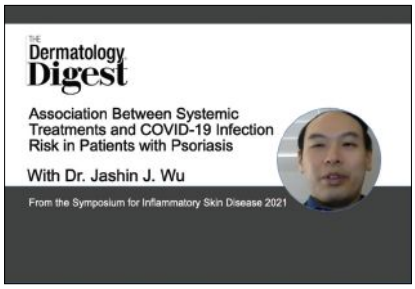
Biologics for psoriasis in the COVID-19 era

Are patients with psoriasis at a higher risk of contracting COVID-19? Can you treat this population with systemic therapies safely during the pandemic? Those are the questions Jashin J. Wu, MD, FAAD, and colleagues addressed in research presented at this year's inaugural Symposium for Inflammatory Skin Disease, a planned annual virtual meeting.

Dr. Wu, Course Director of the symposium, sat down with *The Dermatology Digest* to discuss the poster, "Association Between Systemic Treatments and COVID-19 Infection Risk in Patients with Psoriasis."

First, Dr. Wu et al. gathered data on COVID-19 incidence in patients with psoriasis.

"We had this large data set—we had over 167,000 patients with psoriasis—and we checked to see the incidence of COVID-19 infection in these patients compared to the general population," said Dr. Wu.



JASHIN J. WU, MD, FAAD, is Founder and CEO, Dermatology Research and Education Foundation; and Founder and Course Director of Skin Cancer Symposium + Symposium for Inflammatory Skin Disease, San Diego Dermatology Symposium, and Dermatology Refresher Symposium.

WATCH — https://thedermdigest.com/covid-19/biologics-for-psoriasis-in-the-covid-19-era

"Just because there's a pandemic going on, it doesn't mean you cannot have a patient on a systemic agent."

They found an 18% higher incident of COVID-19 among patients with psoriasis.

Second, they looked at risk in patients with psoriasis in terms of treatment with systemic vs topical therapies. Subset analyses revealed those patients on systemic therapies had a lower incidence of COVID-19 infection:

- TNF-α inhibitors by 13%
- Interleukin-23 inhibitors by 26%
- Methotrexate by 19%
- Apremilast by 30%

According to Dr. Wu, the therapies with broader inflammatory cytokine effects may offer better protection from COVID-19 infection, whereas those that are more targeted and potentially efficacious for the treatment of psoriasis may not be as effective at lowering COVID-19 risk.

"Just because there's a pandemic going on, it doesn't mean you cannot have a patient on a systemic agent," said Dr. Wu. "So some of these agents may actually potentially prevent [patients] from getting COVID-19 infection. If they really need to have a systemic agent, you just need to be aware that some may increase the risk; some may decrease the risk." ◈

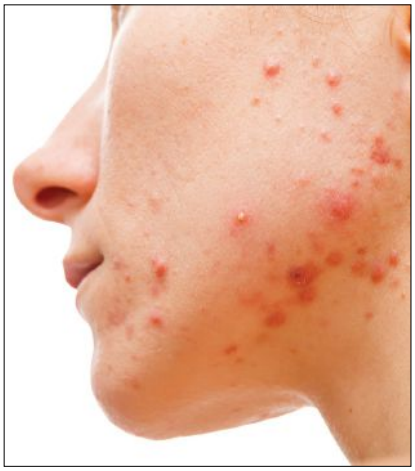
Dr. Graber provides expert advice for next steps when first-line acne and rosacea treatments fail.

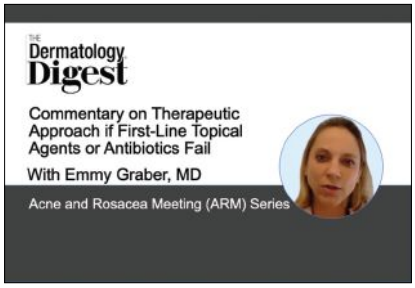
When first-line acne treatments fail

"[The talk] I gave in the main meeting was around what to do when first-line treatment options, fail, and some of the nuances about the other treatment options that we have," said Emmy Graber, MD, MBA.

Dr. Graber's talk included the role of spironolactone, isotretinoin, and diet for the management of acne.

Spironolacton, she said, is generally an option for the adult female patient whose acne flares cyclically, either before or after menses. When asked about lower age limits, Dr. Graber said there is recent research that shows spironolactone is safe in the pediatric population.





EMMY GRABER, MD, MBA
Founder, The Dermatology Institute of Boston
Boston, Massachusetts

WATCH — https://thedermdigest.com/video/when-first-line-acne-treatments-fail

"Typically I wait until a patient has begun menstruating and I do like to see that their periods have been on a regular basis, and established on roughly a monthly schedule before starting spironolactone in pediatric patients."

Although there are many signs that moving from conventional acne therapies to isotretinoin may be appropriate, including moderate to severe acne and scarring, Dr. Graber suggests to also consider quality of life and psy-

ABOUT THE ACNE AND ROSACEA MEETING

The **Acne and Rosacea Meetin**g (ARM) is a 2-part virtual meeting series directed by Dr. Emmy Graber that includes distinct agendas and faculty. **ARM** is designed to comprehensively address acne, acne scarring, and rosacea for the practicing dermatologist, including topical, oral, and laser therapies, as well as the psychological toll these conditions take on patients. The meeting series offers a total of 6 CME credits (3 per meeting) and attendance is at no cost to the physician.

COMING SOON

October 5, 2021
8 pm – 9:30 pm ET

- **ANDREW ALEXIS, MD** — "Debunking and Reaffirming Isotretinoin Myths — What's the Evidence?"
- **ERIC BERNSTEIN, MD** — "Clearing the Color — Reducing the Erythema and Hyperpigmentation of Acne and Rosacea"
- **ANNE CHAPAS, MD** — "Lasers and Lights for Improving Atrophic Acne Scars"
- **LINDA STEIN GOLD, MD** — "Special Considerations for Treating Acne, Acne Scars and Rosacea in Skin of Color"
- **ALL FACULTY** — Does Timing Matter? — Isotretinoin and Procedures

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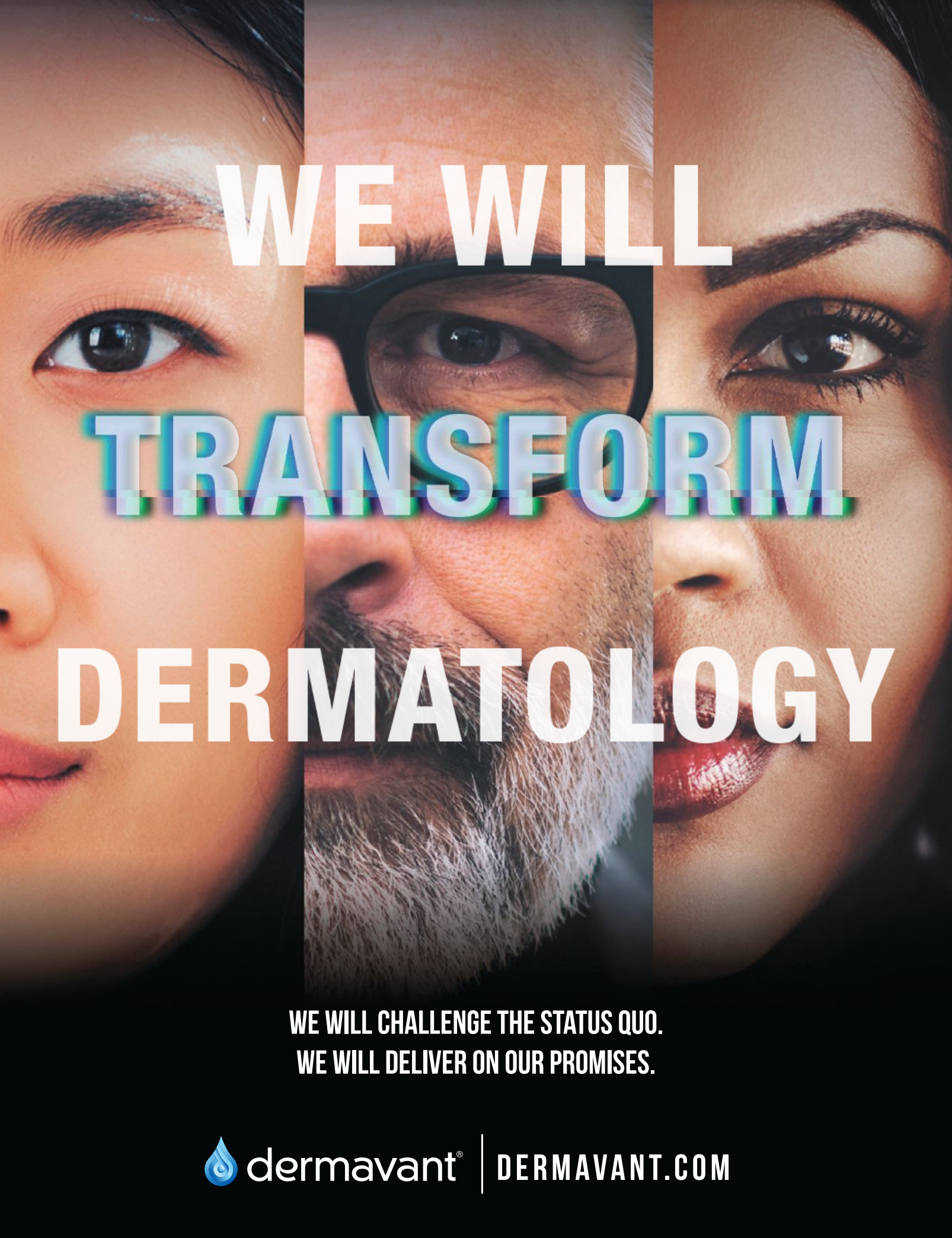
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chological factors in milder cases.

"If they have acne covering a broad surface area—their chest, their back, their face—and they just are not compliant with applying topical medications or, for some reason, can't take another systemic medication, I'll initiate the conversation about isotretinoin."

Dr. Graber answers more on isotretinoin:

- If the patient has a history of depression, do you require a mental health professional written clearance?
- Do you have a favorite form of isotretinoin?
- How often do you have to repeat isotretinoin after a successful first course?

In terms of diet, Dr. Graber said that's a little tricky. While there is some evidence that skim milk products may cause or worsen acne, no one really knows who this is likely to affect.

"I usually suggest a trial of cutting out dairy, especially skim milk products, and I let [patients] know, this may improve your acne, it doesn't for everyone. But if you want to give it a try, let's try it and see if it does improve your acne. So that is something worth considering, but it's very hard to know for which patients that will work." ◈

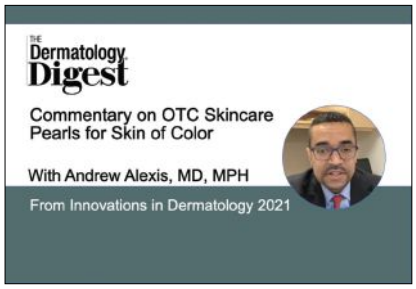
Dr. Andrew Alexis discusses the role of OTC products for common dermatologic disorders in skin of color (SOC) for cleansing, moisturizing, and sun protection as part of acne, hyperpigmentation, and eczema treatments.

Practical pearls for skin disorders in SOC

"Over-the-counter skincare plays a very key adjunctive role, and sometimes alternative role, in the management of common dermatologic disorders in skin of color, including acne hyperpigmentation, and eczema, or atopic dermatitis—three of the most common reasons for patients of color to see a dermatologist," said Andrew F. Alexis, MD, MPH.

Based on his presentation, "OTC Skincare Pearls for Skin of Color," from Innovations in Dermatology Meeting 2021, Dr. Alexis discussed the role of OTC products for common dermatologic disorders in skin of color (SOC) for cleansing, moisturizing, and sun protection as part of acne, hyperpigmentation, and eczema treatments.

In this sit-down with *The Dermatology Digest*, Dr. Alexis explains the many OTC ingredients in detail that are available for acne treatment, emphasizing recommending those that will keep dryness and irritation in SOC to a minimum. Sun protection, he said, is key for the treatment of hyperpigmentation, including melasma and other disorders characterized by hyperpigmentation. Finally, moisturizers can be effectively used in the treatment of eczema to prolong time-to-flare and to reduce both the frequency of flares and use of topical corticosteroids. ◈



ANDREW F. ALEXIS, MD, MPH, is the Vice-Chair for Diversity and Inclusion for the Department of Dermatology and dermatologist at the Center for Diverse Skin Complexions at Weill Cornell Medicine in New York City.

WATCH — https://thedermdigest.com/skin-care/practical-pearls-for-skin-disorders-in-soc

Exophytic nodule following trauma

With Frank Winsett, MD, Caroline Crain, MD, Janice Wilson, MD, Kathleen Kroger, MD

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CASE HISTORY

An 82-year-old man who was admitted for newly diagnosed pancytopenia secondary to myelodysplastic syndrome (MDS) presented to the dermatology consult service with a persistent growth on the lateral aspect of the right elbow. He reported bumping his elbow on a piece of furniture during a fall in his home two months prior; this resulted in a tear in the skin. Since then, the wound continued to bleed and eventually developed a 6-cm, erythematous, friable, fungating, and ulcerated mass on the right elbow without appreciable lymphadenopathy (Figure 1). There was neither associated pain nor pruritus. At this juncture, the patient had not yet begun therapy for MDS.

The patient did have other health issues, including hypertension, Type 2 diabetes, coronary artery disease, congestive heart failure, aortic stenosis, and prostate cancer (in remission). He was taking the following medications: glipizide, metformin, pravastatin, tamsulosin, gabapentin, venlafaxine, loratadine, ferrous gluconate, melatonin, and nitroglycerin.

Over the course of his evaluation, diagnostic work-up was largely unremarkable except for expected laboratory abnormalities. Of particular note, a chest x-ray and chest CT scan were normal. A biopsy was taken. The differential diagnosis was rather broad.

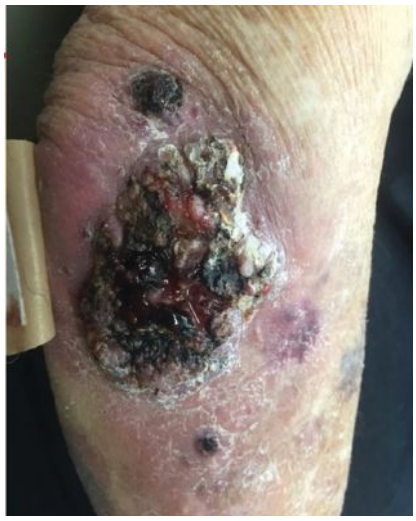

Figure 1. An 82-year-old man presented with a persistent growth on the lateral aspect of the right elbow.

What do you think he has?

For more on this case, turn to page 48 ▸

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EXOPHYTIC NODULE FOLLOWING TRAUMA

DISCUSSION

Skin biopsy revealed marked pseudoepitheliomatous hyperplasia with abundant underlying suppurative granulomatous inflammation. Numerous infectious stains were performed. Fite stain revealed rare fragments of branching rod-like structures. Gram staining further identified fine filamentous, branching rods with a beaded appearance, with alternating Gram-positive and Gram-negative portions, suggestive of *Nocardia* species (Figure 2). Acid-fast bacilli (AFB) culture grew Gram-positive branching bacilli later confirmed to be *Nocardia vulneris* (subtype of *Nocardia brasiliensis* with 99.37% homology of 16S rRNA gene sequence). Susceptibility testing revealed resistance to ceftriaxone, ciprofloxacin, clarithromycin, and imipenem; intermediate susceptibility to doxycycline, minocycline, and moxifloxacin; and susceptibility to amikacin, amoxicillin-clavulanate, linezolid, tobramycin, and trimethoprim/sulfamethoxazole.

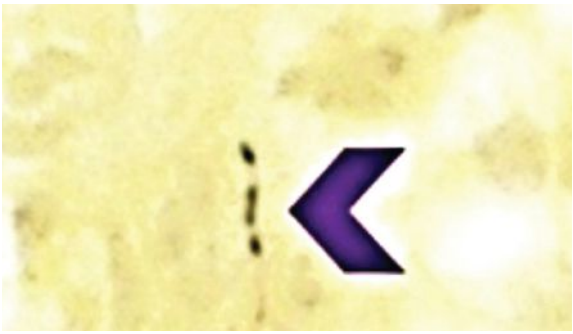

Figure 2. Gram staining identified fine filamentous, branching rods with a beaded appearance, with alternating Gram-positive and Gram-negative portions, suggestive of *Nocardia* species.

Nocardia **is typically found in soil and decaying vegetation and causes a wide range of clinical manifestations, including localized and disseminated disease.**

The patient was initially started on trimethoprim-sulfamethoxazole and minocycline, but once susceptibility testing returned, he was transitioned to the least toxic drug, namely amoxicillin-clavulanate 875mg/125mg, twice daily. The patient responded well to therapy with significant clinical improvement after 4 months of treatment (Figure 3). The intended duration of treatment was at least 6 months. However, he continued to decline due to other comorbidities and ultimately expired before the completion of therapy.

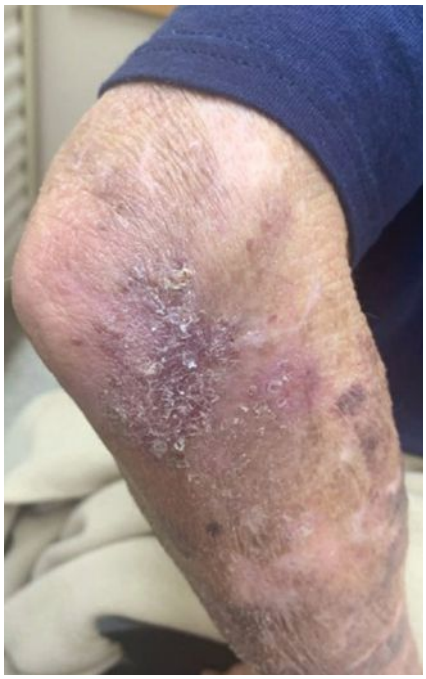

Figure 3. After 4 months of treatment, the patient showed significant clinical improvement.

Nocardia species are Gram-positive, aerobic, filamentous, partially acid-fast bacteria that are ubiquitous in the environment. *Nocardia* is typically found in soil and decaying vegetation and causes a wide range of clinical manifestations, including localized and disseminated disease. It can manifest clinically as cellulitis, pustules, pyoderma, subcutaneous abscesses, and ulcerations, frequently resembling the soft tissue infections caused by staphylococci and streptococci. Primary cutaneous disease has a more indolent course than other forms of nocardiosis, and often develops in immunocompetent hosts. While many *Nocardia* species have been implicated in cutaneous disease, *Nocardia brasiliensis* is most commonly associated with infection of the skin and soft tissues. It is usually acquired through traumatic inoculation, and the majority of cases in the United States occur in the southern or southwestern regions. ◈

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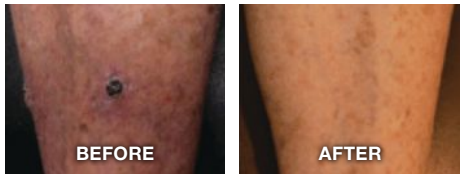
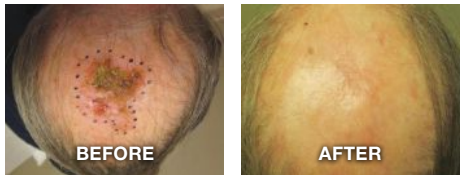
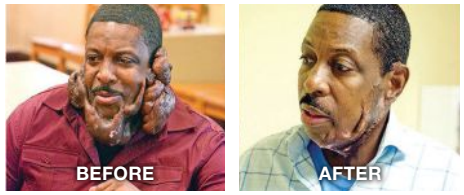
NMSC ON LOWER LEG



NMSC ON SCALP



FACIAL KELOID SCARRING



SRT defined as a first line treatment for NMSC by ASTRO. The American Society for Radiation Oncology (ASTRO), the leading authority on evidence-based medicine and treatment modalities involving radiation therapies recommends Superficial Radiation Therapy (SRT) as a first-line, non-surgical, alternative to surgery when treating patients with non-melanoma skin cancer (NMSC).