What’s New and Hot in Dermatology?

By Brian J. Abittan, MD, Dermatopharmacology Fellow

At Mount Sinai Dermatology, we pride ourselves on providing outstanding, cutting-edge care to our patients. I asked some of our leading experts in their fields about the newest and hottest trends in dermatology today.

Mark G. Lebwohl, MD, Chair of Dermatology, noted that our department has been instrumental in the development of a number of important drugs that were FDA approved this year. According to Dr. Lebwohl, “Dupilumab (Dupixent®) was introduced a few months ago and has already helped many thousands of patients with moderate to severe atopic dermatitis. Additionally, two new drugs for psoriasis that we helped develop were introduced in 2017, guselkumab (Tremfya™) and brodalumab (SILIQ™). We are currently investigating a new treatment for precancerous skin lesions that, unlike existing treatments, does not cause skin irritation. Also, based on our department’s research findings, we are investigating new treatments for vitiligo, a disfiguring condition in which one's own immune system attacks pigment-forming cells. We expect dramatic changes in vitiligo treatment in the foreseeable future.”

Our Vice Chair, Emma Guttman, MD, PhD, is a leader in our vast clinical trials center. She noted that novel treatments for alopecia areata, a distressing form of hair loss in children and adults, are in the pipeline. “Based on our growing understanding of alopecia areata and the inflammatory molecules that are found in affected patients, new therapeutic agents are being developed.

At Mount Sinai, we currently offer opportunities to participate in clinical trials of drugs that counteract several key molecules that are linked with alopecia areata. In fact, our center offers more studies of new treatments for this disorder than any other center worldwide,” said Dr. Guttman. (Please see page 4 for more information about enrolling in clinical trials.)

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Patients and parents ask many great questions about the itchy skin rash commonly known as eczema. Here are the ones we hear most often.

**Q: What is eczema, and what causes it?**

**A:** The word “eczema” means any form of skin inflammation, but most often, what’s meant is the condition that dermatologists call atopic dermatitis. It consists of itchy, red, scaly patches of skin. Atopic dermatitis affects one in five individuals, commonly infants and children, though it can occur at any age. Its cause is not fully understood, but researchers including our own Emma Guttman, MD, PhD, have established that an over-reactive immune system is largely responsible. Risk factors for atopic dermatitis include a family history of allergic disorders such as asthma or seasonal allergies, and exposure to environmental allergens such as pollen, mold spores, dust mites, and other airborne particles. In some cases, food sensitivities and skin contact with irritating materials like wool clothing and feather pillows can exacerbate atopic dermatitis.

— Susan V. Bershad, MD
Director of Adolescent Dermatology
Mount Sinai Doctors Faculty Practice

**Q: Our pediatrician prescribed a steroid ointment for my child’s eczema. Are steroids safe for young children?**

**A:** Topical steroids, correctly called “corticosteroids” to differentiate them from body-building anabolic steroids, come in many strengths. When the appropriate strength for a child’s age is used for the proper length of time, topical corticosteroids are generally very safe for young children. Your child’s age, the body site affected, and the severity of atopic dermatitis will determine which corticosteroid formula is prescribed. The potential side effects of topical corticosteroids, which include skin thinning, stretch marks, acne-type eruptions, temporary pigment alteration, and systemic absorption, rarely occur when these medicines are used correctly.

— Lauren Geller, MD
Director of Pediatric Dermatology
Mount Sinai Doctors Faculty Practice

**Q: I’ve heard about a new ointment for atopic dermatitis called Eucrisa®. How does it work, and which patients should use it?**

**A:** Eucrisa® (crisaborole) ointment is a nonsteroidal anti-inflammatory medication that is the first in its class to be FDA approved. It is indicated for topical treatment of mild to moderate atopic dermatitis in patients over age two. Eucrisa® works differently from corticosteroids and calcineurin inhibitors like Protopic® (tacrolimus) and Elidel® (pimecrolimus) by blocking an enzyme called phosphodiesterase 4 (PDE4). Because Eucrisa® has a new, unique mechanism of action and appears to be quite safe, in my practice it has been very helpful for patients who have not achieved adequate success with corticosteroids. I also prescribe it for sites like the face, where corticosteroids might cause skin thinning over time.

— Nanette B. Silverberg, MD
Chief of Pediatric Dermatology
Mount Sinai Health System

**Q: What is Dupixent®? When do you consider using this drug to treat atopic dermatitis?**

**A:** Dupixent® (dupilumab) is a new injectable biologic drug for moderate to severe atopic dermatitis in patients who are at least 18 years of age. It was approved by the FDA in March 2017. We consider it when a patient’s condition has not been controlled with topical treatments. Dupixent® often produces excellent results and has a very good safety profile. It can be used with or without topical corticosteroids. Currently we are conducting clinical trials to study its efficacy and safety for ages 12 to 17. Studies for ages 5 to 11 are anticipated in the near future.

— Emma Guttman, MD, PhD
Sol and Clara Kest Professor of Dermatology;
Professor of Medicine, Clinical Immunology;
Vice Chair for Research, Department of Dermatology,
Icahn School of Medicine at Mount Sinai

Atopic dermatitis in a patient of Dr. Guttman before and after Dupixent® treatment.
Andrew Alexis, MD, MPH, Chair of our department at Mount Sinai St. Luke’s and Mount Sinai West, commented on the progress being made in our ability to treat melasma, a type of facial discoloration that commonly affects women of childbearing age. “The Skin of Color Center at Mount Sinai St. Luke’s and Mount Sinai West has made great strides in the treatment of melasma. We use combination therapy with fractional lasers, topical prescription formulations, and nonprescription multimodal cosmeceuticals. A promising agent in this class, Lytera® Skin Brightening Complex, was recently studied at Mount Sinai St. Luke’s. We are now able to effectively manage even the most challenging cases of this common pigmentary disorder,” according to Dr. Alexis.

Joshua Zeichner, MD, Director of Cosmetic and Clinical Research at Mount Sinai Doctors Faculty Practice, stated that there is growing hope for patients with thinning hair. “I am excited to be able to offer a new treatment called PRP (platelet-rich plasma) for hair thinning. This is the latest breaking therapy for hair loss. The procedure uses the patient’s own growth factors, which could potentially stimulate new hair growth,” said Dr. Zeichner. Early studies suggest that results vary among patients, and in some cases, satisfactory responses may not be achieved.

What’s new in aesthetic dermatology? I asked one of our cosmetic dermatology experts, Hooman Khorasani, MD, Chief of the Division of Dermatologic and Cosmetic Surgery at Mount Sinai Doctors Faculty Practice, to give us the inside scoop. In Dr. Khorasani’s view, “The goal is not to change a patient’s appearance but to enhance one’s best features. We live in an era when less is more. Dermatologists are steering away from marathon treatment sessions and instead utilizing “micro-sessions” with more frequent follow-up visits. This strategy ensures that patients look great at all times, and the change is subtle and natural.”

Dr. Khorasani described some new cosmetic filler products. “Restylane® Refyne and Defyne are the new FDA-approved advanced hyaluronic acid formulations in which the gels are more cohesive, allowing them to conform easily with the movements of facial expression. The innovative technology allows for more natural results, both at rest and during movement. Juvéderm Volbella® XC, a new lip filler, has become the most commonly used product for lip augmentation. I’ve found that it causes fewer adverse reactions than others, which means faster recovery,” Dr. Khorasani said.

Disclosure: Dr. Alexis is a consultant for Allergan plc, the manufacturer of Lytera® mentioned in this article.
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Extensions can be matched to the patient's hair color, and they can be worn for up to eight weeks at a time, depending on the wearer's styling and shampooing habits. When hair loss is mainly at the front and top of the scalp, a similar option is a partial wig, also called a hair topper or wiglet, which can be clipped on and blended into one's hairstyle. One of the latest trends is microblading, which started as a beauty treatment to fill and shape eyebrows. Now it is being used on the scalp to conceal thinning by realistically replicating hair strands. It is especially useful at the front and side hairlines. I think of it as a form of temporary tattooing — the results last up to 18 months.
Managing Hair Loss in Women
An Interview with Gervaise L. Gerstner, MD
Faculty Member, Kimberly and Eric J. Waldman
Department of Dermatology

Q: What diagnostic steps do you take when a woman is losing her hair?
A: The first and simplest method to determine if hair is actively shedding is the gentle pull test. I count loose hairs and examine them with a magnifier or dermatoscope. Then I ask the patient to perform a 24-hour hair count at home. Shedding more than 100 hairs per day can be a sign of telogen effluvium, a self-resolving type of hair loss that occurs after childbirth, weight loss, fever, or surgery. When a woman’s hair is thinning but not shedding in abnormal numbers, this suggests a more challenging problem: female pattern hair loss due to menopause, aging, genetics, or a hormonal condition. There are many other reasons for hair loss. If the cause is not obvious, I will order laboratory testing for blood counts, iron levels, thyroid function, hormone levels, connective tissue disorders, and a complete metabolic panel.

Q: Most dermatologists would agree that the most reliable treatment for female pattern hair loss is topical minoxidil, which is available over the counter as 2% solution to apply twice daily or 5% foam once daily. Which other medical and surgical treatments would you suggest to treat female pattern hair loss?
A: I recommend one of two dietary supplements for hair loss, Viviscal® or Nutrafol®. Both of these contain biotin, minerals, and adaptogens (herbs for hormone balance) that are believed to support hair growth. [Editor’s note: Studies are still preliminary, and results vary among patients.] If there are signs of a hormonal imbalance, I might recommend oral contraceptives for premenopausal women, with or without a drug called spironolactone, an inhibitor of male hormones, which can be taken by women of any age but is prohibited during pregnancy. Another hormonal medication called finasteride works well for hair loss in men but is not FDA approved for female patients. Hair transplantation is a surgical procedure that involves removing small groups of hair follicles from areas of dense hair at the back of the scalp and inserting them into areas that are sparse.

Q: What is the new procedure called PRP?
A: PRP stands for platelet-rich plasma, an emerging noninvasive method for hair restoration. Growth factors in platelets may promote hair growth, and studies show some promising results, especially in conjunction with a procedure called microneedling. Patients should be aware that there are various methods of performing PRP, with differing results. During this procedure, concentrated platelets and plasma are harvested from the patient’s own blood and injected into the scalp once a month for several months. Regular maintenance therapy is recommended for those who achieve success.

Q: Hair loss is very distressing, maybe even more so for women than for men because of social expectations. What practical tips do you give to disguise hair loss or thinning?
A: I agree that this is one of the most stressful conditions we see. It is important to discuss methods of coping, such as counseling and support groups. I also encourage women to take advantage of several relatively fast and reliable fixes. I recommend products with volumizing fibers, which are electrostatically charged to make them cling to hair shafts and instantly make hair look fuller. The fibers stay in place all day and wash out with shampoo. Another way to add volume is with hair extensions that are clipped or glued to existing hair.

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Know the Facts About Melanoma

The National Cancer Institute estimates that 2.2 percent of Americans will develop melanoma, a type of skin cancer, during their lives. The rate of melanoma has steadily increased over the past three decades. Currently, more than one million people in the United States are living with it. Over 87,000 new melanomas will be diagnosed this year, and almost 10,000 people will die as a result of the disease.

Melanoma may appear as a new or changing mole. The danger signs (ABCDEs) are: **Asymmetry**, **Border irregularities**, **Color variation**, **Diameter** over 6 millimeters, and **Evolution**. The most common body sites are the upper back, torso, lower legs, head, and neck. The greatest risk factor for melanoma is ultraviolet exposure from sunlight and tanning beds. Individuals with fair skin, many moles, large moles, or a family history of melanoma are even more vulnerable.

Melanomas diagnosed in their earliest stages have a 97 percent cure rate, but advanced melanomas are often deadly. Dermatologists recommend sun avoidance, year-round sunscreen use, and regular skin cancer screenings. We also encourage you to join the movement against indoor tanning. The United States lags behind many nations that have made this practice illegal for minors or banned tanning salons altogether.

*For more information, please visit: [www.aad.org/public/diseases/skin-cancer/melanoma](http://www.aad.org/public/diseases/skin-cancer/melanoma)*