New Treatments for Vitiligo Promise a Brighter Future

By Brian Abittan, MD, Dermatology Resident, Icahn School of Medicine at Mount Sinai

Vitiligo is a skin disorder characterized by the loss of normal pigmentation. Patients may develop small white spots or large depigmented areas. Vitiligo occurs because pigment-producing cells called melanocytes are damaged by the patient's immune system. Why this happens is still being studied. Current theories point to a combination of genetic, autoimmune, and environmental factors.

Although vitiligo usually has no physical symptoms except for pigment loss and a tendency to sunburn, it often causes emotional distress and social impairment. This is especially true when it affects the face, scalp (where the hair can also lose color), large portions of the body surface, or deeper skin tones.

A patient with vitiligo before and after 25 excimer laser treatments over a 12-week period. Photos courtesy of Suhail M. Hadi, MBChB, FRCP.

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The Truth About Measles: Prevention Matters

By Harry Meister, Dermatology Research Summer Intern, Icahn School of Medicine at Mount Sinai; 11th Grade Student, Torah Academy of Bergen County, Teaneck, New Jersey

Measles can be dangerous, especially for babies and young children.

- High fever (may spike to more than 104°F)
- Cough
- Runny nose
- Red, watery eyes
- Rash breaks out 3-5 days after symptoms begin

You have the power to protect your child.

Provide your children with safe and long-lasting protection against measles by making sure they get the measles-mumps-rubella (MMR) vaccine according to CDC's recommended immunization schedule.

In the year 2000, the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) determined that measles had been “eliminated from the United States,” meaning that the occasional cases reported here came mostly from outside the country. The U.S. has maintained this status for almost 20 years, but now measles outbreaks are on the rise, due to global travel and vaccination rates below optimal levels. What follows on page 3 are answers to some frequently asked questions about measles.

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www.cdc.gov/measles

Illustration courtesy of the U.S. Department of Health and Human Services, CDC
A Disease of Skin and Muscles Can Be a Mystery When Only the Skin Is Involved

By Saakshi Khattri, MBBS, MD, Director, Dermatology Service to Treat Systemic Diseases; Assistant Professor of Dermatology, Icahn School of Medicine at Mount Sinai

As the Greek roots of the word suggest, dermatomyositis is an inflammatory disease of skin (derm) and muscle (myo). This condition falls in the category of autoimmune disorders, meaning the body's own immune system is responsible, but its exact cause is unknown.

The usual symptoms of dermatomyositis (DM) are fatigue and symmetrical muscle weakness of the shoulders, upper arms, hips, and thighs, accompanied by the hallmark skin features: red bumps on the backs of the hands known as Gottron's papules, and a reddish-purple eruption on the upper eyelids, called heliotrope rash.

Other skin findings might include rashes in sun-exposed areas, reddish patches on the back surfaces of the hands, poikiloderma (skin thinning with pigment changes and visible capillaries), changes to the skin around the nails, and red scaling patches on the scalp.

Most patients with DM suffer from muscle weakness, making the diagnosis relatively clear-cut, but sometimes DM patients lack muscle involvement and exhibit only skin manifestations, which can be subtle. These patients have a type of DM referred to as clinically amyopathic dermatomyositis (CADM). Because CADM is rare, these patients are often misdiagnosed as having eczema, sun sensitivity, or an autoimmune disorder other than CADM, such as lupus or undifferentiated connective tissue disease.

A patient may spend years seeing numerous specialists before a correct diagnosis of CADM is made. Solving this mystery is crucial, because DM and CADM can affect many other organs, including the heart and lungs. There is also an increased cancer risk, so it is important to monitor patients over the long term for lung, ovarian, and other malignancies.

Mystery Solved—A Patient’s Perspective

Andrea suffered with skin problems for years before being correctly diagnosed with CADM. This is Andrea’s story in her own words:

“Three years ago, I developed a skin rash on my neck and face, which then progressed to involve my hands and scalp. I went to a local dermatologist and was initially treated for eczema. Despite being treated for a year with various topical and oral medications, my condition did not improve.

“I then came to the Dermatology Department at Mount Sinai for a second opinion. During my first visit, Dr. Alexandra Golant concluded that I did not have eczema and suspected that I had dermatomyositis, which was then confirmed with a skin biopsy. Dr. Golant referred me to Dr. Saakshi Khattri, a rheumatologist and dermatologist, who runs the Dermatology Service to Treat Systemic Diseases.

“Dr. Khattri initially started me on oral medication, which gave limited improvement, and then she recommended IVIG (intravenous immunoglobulin) treatments. The IVIG treatments have dramatically improved my skin. There is virtually no rash on my hands or on any other part of my body. My skin looks great, and I feel very good.”
What is measles?
Measles is a very contagious viral infection. Its symptoms are high fever, sore throat, dry cough, runny nose, inflamed eyes, and a skin eruption that appears as flat pink-red overlapping blotches. The rash usually begins on the face three to five days after other symptoms, and then it spreads downward to involve most of the body. Measles can cause serious complications such as diarrhea, dehydration, hearing loss, and pneumonia. Of greatest concern is that one out of every 1,000 people with measles will develop encephalitis (brain swelling), which can lead to convulsions, brain damage, and death.

Who is at risk, and how does measles spread?
Individuals are considered to be immune to measles if they had measles infection in the past or received two doses of measles vaccine. Most people born before 1957 are immune, because almost everyone in this age group had measles as a child. But anyone who lacks immunity has a 90 percent risk of getting measles after close contact with an infected person. The illness spreads through infectious droplets from a cough or sneeze of someone carrying the virus. It’s important to know that the measles incubation period is 10 to 14 days before symptoms appear and that the virus can be transmitted during the last 4 days of this period. This means that nonimmune people are at risk of getting measles from contagious carriers who do not yet have symptoms.

Is measles preventable?
Measles is easily preventable with Measles-Mumps-Rubella (MMR) vaccine. It is standard practice in the United States to give the first dose at 12 to 15 months of age, and the second dose at four to six years of age. The vaccine is 97 percent effective at preventing measles. A newer option is the MMRV vaccine that includes protection against chickenpox (Varicella virus). In the era prior to the introduction of MMR in 1963, the CDC estimates that three to four million people in the United States contracted measles each year, resulting in 400 to 500 deaths.

Is measles vaccine safe?
The Food and Drug Administration has examined MMR and MMRV vaccines thoroughly. After extensive laboratory investigations and large human population studies, the vaccines are deemed to be “very safe” according to the CDC, which also points out that the vaccines are “much safer” than the health risks associated with getting measles. The possible side effects of MMR and MMRV vaccines include low-grade fever and a mild skin rash, which tend to resolve quickly.

Where have measles outbreaks occurred?
Measles is found around the world, particularly in countries and communities with low vaccination rates. In the United States, more than 1,200 cases were reported in 31 states during the first nine months of 2019. About 680 cases were reported in New York City from October 2018 to September 2019, primarily in Williamsburg, Brooklyn. Within New York State, there were also outbreaks in Queens, Rockland County, and Orange County. In September 2019, Mayor Bill de Blasio lifted the public health emergency in New York City but said the risk is not completely over. In October, a new case was confirmed in Putnam County, New York, and another was reported in northern New Jersey.

What if I was exposed to measles or have symptoms?
If you are not immune to measles and have been exposed, or have a red blotchy skin rash with fever, cough, runny nose, and inflamed eyes, call your health care provider immediately for further instructions. Do not use public transportation. Avoid settings such as school, work, and places of worship. Do not go to an urgent care center, emergency room, or doctor’s office until you receive special instructions, and inform the staff at once upon arrival that you might have measles.

For more information about the measles outbreak and measles vaccination, visit www.cdc.gov/measles or www.health.ny.gov/publications/2170.pdf
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Treatment options for vitiligo have been limited and were often ineffective, but there is hope for more dramatic advances. One example is excimer laser treatment, a form of phototherapy, first used and developed for vitiligo by members of the Mount Sinai faculty. One of the earliest practitioners of this method, Suhail M. Hadi, MBChB, FRCP, Associate Professor, Kimberly and Eric J. Waldman Department of Dermatology, directs our robust excimer laser program that treats vitiligo more successfully than ever before (see images on page 1).

As we gain understanding of the origins of vitiligo, new therapies are being discovered and then studied to ensure their efficacy and safety. The Dermatology Clinical Research Program at Mount Sinai is actively involved in the testing of new treatments for localized and generalized vitiligo. Innovative uses of oral, topical, and implantable agents have shown promising results.

The U.S. Food and Drug Administration recently approved a subcutaneous implantable drug that stimulates melanin production, Scenesse® (afemelanotide), as a photoprotective agent for a rare condition called erythropoietic protoporphyria. Clinical researchers at Mount Sinai developed a method to treat vitiligo that combines the Scenesse implant with ultraviolet B phototherapy. Successful results of the first multicenter study of this method were published in a 2015 JAMA Dermatology article co-authored by Mount Sinai dermatologists Madelaine Haddican, MD, Rita Linkner, MD, and Mark G. Lebwohl, MD, Waldman Professor and Chair of Dermatology at the Icahn School of Medicine at Mount Sinai.

We are hopeful that current investigational treatments, including new classes of drugs such as Janus kinase (JAK) inhibitors and other immune modulators, will produce superior approaches to vitiligo. The treatment landscape for vitiligo is changing rapidly—with Mount Sinai leading the effort. To learn more about our clinical trials for vitiligo, call 212-241-3288.

[Disclosure: The Kimberly and Eric J. Waldman Department of Dermatology is a patent holder of excimer laser treatment for vitiligo.]
Affordable Cosmetic Dermatology Procedures Will Be Offered at Mount Sinai-Union Square

By Alice Bendix Gottlieb, MD, PhD, Medical Director of Dermatology, Mount Sinai–Union Square; Clinical Professor of Dermatology, Icahn School of Medicine at Mount Sinai

The Kimberly and Eric J. Waldman Department of Dermatology at the Icahn School of Medicine at Mount Sinai is pleased to introduce a new clinic at our Union Square location that will provide reduced-price cosmetic procedures. The Resident Teaching Cosmetics Clinic is projected to open in December of 2019, offering a variety of aesthetic services performed by our resident physicians under the direct supervision of experienced faculty members.

OUR AESTHETIC SERVICES WILL INCLUDE:

- Wrinkle-reducing products like Botox® for crow’s feet and frown lines
- Filler substance injections for creases, furrows, and hollow areas
- Medical-grade chemical peels to treat skin aging and pigmentation
- Laser resurfacing for skin rejuvenation and acne scars
- Laser treatments for vascular lesions, rosacea, and redness
- Laser hair removal for unwanted facial and body hair

Our appointment line will be open by early December 2019. At that time, anyone interested in our services (see box) may call the Resident Teaching Cosmetics Clinic at 212-844-8800 with questions or to request an initial consultation.

Please note: Cosmetic procedures are not covered by health insurance. Full payment is expected at the time of the visit.

The Dermatology Clinical Research Program is now enrolling patients with:

- Alopecia areata (ages 12+)
- Eczema (ages 6+)
- Hidradenitis suppurativa*
- Keloid scars*
- Pemphigus vulgaris*
- Psoriasis (all forms)*
- Vitiligo (loss of pigment)*
- *Ages 18+

For More Information, contact us at 212-241-3288.

Clinical Trial Opportunities

Please fill out both sides, detach this form and mail to:

The Kimberly and Eric J. Waldman Department of Dermatology
One Gustave L. Levy Place, Box 1047
New York, NY 10029-6574

Please contact us by telephone at 212-659-8500 or email your name and address to PhilanthropyOptOut@mountsinai.org if you wish to have your name removed from our distribution list of fundraising materials.
An Update on the New, Improved Shingles Vaccine

Shingrix, a very effective and long-lasting vaccine to prevent shingles that was released in 2017, is now preferred over Zostavax®, which came out in 2006. The Centers for Disease Control and Prevention (CDC) recommends two doses of Shingrix separated by two to six months for healthy adults ages 50 and older. Close to 7 million doses of Shingrix were administered in its first year, creating a temporary shortage. In 2019 the manufacturer increased the supply in an effort to keep pace with demand.

Shingles is a blistering skin rash in a band-like pattern that can lead to severe long-term pain and burning, called postherpetic neuralgia (PHN). Shingles is caused by reactivation of the chickenpox virus. People with a history of chickenpox have a one in three chance of getting shingles, according to a CDC estimate.

Individuals over 50 are at the highest risk of getting shingles and suffering from PHN. If you are in this age group, the CDC suggests contacting your health care provider to learn more about Shingrix. Some doctors and many pharmacies carry the vaccine, and most administer it without a prescription. It is best to call ahead: The editor of Skin Health phoned six pharmacies in New York and New Jersey and found Shingrix in stock at four but backordered at two. Insurance coverage varies. For more information, visit www.cdc.gov/shingles or www.shingrix.com.