MORE THAN SKIN DEEP

PAMF offers revolutionary treatments for vitiligo

Speaking before more than a thousand people at a recent Food and Drug Administration virtual public meeting on drug development for vitiligo—a condition marked by white patches of skin on the face and elsewhere on the body—a shy 16-year-old found her voice.

"I used to swim, bike, skateboard, play the violin at concerts and manage track and field at my school," Priyanka Francis, a junior at St. Francis High School in Mountain View, told the panel. Due to her vitiligo, however, which began when she was 12, she withdrew from most of those activities. "At a time when I was ready to explore the world, learn new things and have fun," she added, "vitiligo chipped away at my morale, self-esteem and quality of life."

Priyanka's experience resembles that of many patients with vitiligo, which affects just under 1% of the U.S. population, approximately 3 million people of all races. The condition causes the body to kill off pigment cells, resulting in the white patches. Though vitiligo is not life threatening, it often carries a deep psychological impact, sometimes leading to depression, anxiety and even suicide in certain cultures.

Priyanka can certainly relate. She recalls being more outgoing when she was very young, having lots of friends and always wanting to make people laugh. But as the skin discoloration on her chin, neck and shoulders became more obvious, she found it harder to engage. She didn't know what was happening to her skin, as no one else in her family had experienced anything like it. "We were on a wild goose chase to figure out what was wrong," Priyanka shares.

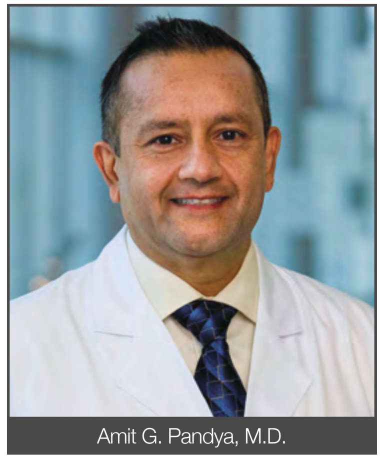
She was first diagnosed with pityriasis alba, a common skin condition in which red, scaly patches can leave areas of hypopigmentation. Eventually, under the care of a dermatologist, she received the correct diagnosis of vitiligo.

Priyanka began using topical creams and narrow-band UBV phototherapy to help improve her skin, but the progress was slow. She and her family continued searching for effective treatment for years, but like many vitiligo patients, they kept coming up short.

Vitiligo Expertise Comes to PAMF

While researching treatment options recently, Priyanka learned that there is a well-known vitiligo specialist at the Palo Alto Medical Foundation. Amit G. Pandya, M.D., who began working at the PAMF Sunnyvale Center in January 2020, is one of only five physicians nationwide—and the only one in Northern California—to offer various skin grafting procedures for vitiligo. Before long, Priyanka was being treated by Dr. Pandya, receiving the most cutting-edge vitiligo treatments available in the U.S.

Starting in 2005 at the University of Texas Southwestern Medical Center, Dr. Pandya has performed several types of grafting procedures that he learned from experts in India, China, Singapore and Colombia and at Henry Ford Hospital in Detroit. Over his career, he has also conducted research on various procedures, resulting in more than 200 published articles, including several on his results with grafting for vitiligo.


Amit G. Pandya, M.D.

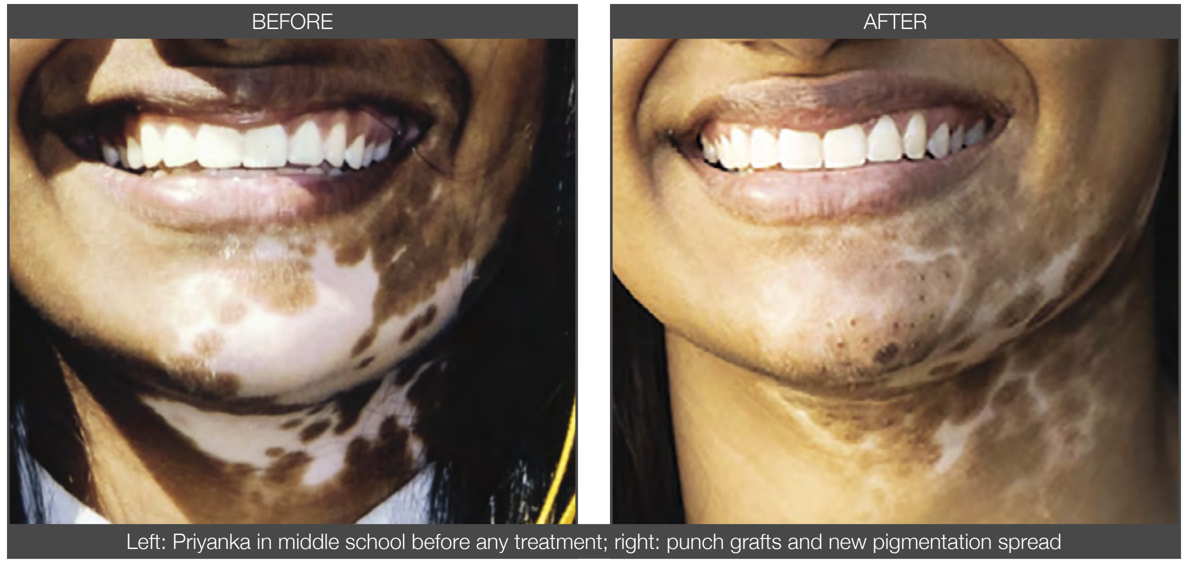
"In 2020, there were more than 1,200 PAMF patients diagnosed with vitiligo—and roughly a quarter of them could be candidates for transplant procedures," Dr. Pandya says. "Half of my patients are of South Asian descent, and like other racial and ethnic groups, they face tremendous stress from this disease."

There are no biomarkers for vitiligo, and its unpredictable nature causes patients to constantly fear new spots appearing. And with so few physicians specializing in the condition, effective treatment isn't easily accessible for many.

"I know it can be frustrating for patients to find doctors who specialize in vitiligo, and many travel very long distances for grafting procedures," Dr. Pandya says. "I'm delighted to bring these techniques for treating pigmentary disorders to Northern California."

Groundbreaking Grafting Procedures

Dr. Pandya is trained to perform three types of skin transplants, each requiring that a patient's vitiligo spots have been stable for more than a year. Since joining PAMF, he has begun offering the first procedure: punch grafting (mini-grafting), which involves grafting small circular pieces of normal skin into areas of vitiligo. New skin growth begins to normalize the area as the pigment cells spread outward from the graft and re-pigment up to 1 centimeter of skin. Ultimately, a patchwork of small grafts with surrounding pigmentation merge together to cover the impacted area.



Left: Priyanka in middle school before any treatment; right: punch grafts and new pigmentation spread

This is the treatment Priyanka received—and she's thrilled with the results. "Initially, my chin was completely white, but after the mini-graft started to fill in, the area is now 80% to 90% back to normal," she reports.

Currently, Dr. Pandya is in the process of acquiring the equipment for a second grafting procedure, called a blister graft. This technique uses the top layer of a blister created on normal skin and grafts it onto the target area.

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>
> —PRIYANKA FRANCIS

Finally, the most innovative technique that Dr. Pandya will soon offer is non-cultured epidermal suspension grafting (NCES). This procedure involves separating epidermal cells from the blister top, placing them in a solution and applying the solution to the target area. With NCES, each small blister can be expanded to cover an area five times larger.

After the success of her mini-graft, Priyanka is eager to be among the first PAMF patients to undergo NCES. "It took about four months for my mini-grafts to reach a 1-centimeter spread, and now I want to do NCES to get all the grafting done in one shot," she says.


Priyanka and her mother, Vimala Francis, support others impacted by vitiligo.

A Budding Advocate

Having found an effective solution for her vitiligo, Priyanka now works to support other patients with the condition and raise awareness for treatment options. Looking back on her FDA testimony, "I'm pretty introverted, so it was fun to be able to share my experience," she says. "Going through the pandemic and struggling with anxiety and depression, I realized that the root of my self-doubt stems from the onset of vitiligo, so I want to help others with the disease."

Priyanka started a blog to share her challenges and experiences and to build community. She and her mother, Vimala Francis, participated at a World Vitiligo Day event with Dr. Pandya in June, and they are both involved in VITFriends, a group that supports patients with vitiligo. Priyanka is also active in VITFriends' Purple Patch Teens Group, which rallies teens to be advocates for vitiligo education and awareness.

Perhaps it's no surprise that Priyanka aspires to be a pediatric dermatologist. She has always enjoyed working with children, volunteering to help younger students at her school and teaching English to international students. She also gathered other socially conscious students to start a club at her high school that highlights global issues in digestible, teen-friendly formats.

As Priyanka feels more in control of her disease, and with her self-confidence on the rise, she is becoming a powerful advocate for patients with vitiligo around the world. "Psychologically, it is so encouraging to see this kind of progress," she says of her treatment. "I've accepted my vitiligo as part of me, but I'm in a happier, more positive place now."