

Treating white spots of vitiligo

Skin color is such a critical part of our sense of who we are. Skin color varies from dark brown to pale white. Our skin color defines our “tribe”, that group of people with whom we identify ourselves. Our tribe defines our culture, how we behave and provides us the security of an extended family.

There are many disorders that alter normal skin color. Some disorders cause dark spots, others white spots. The most dramatic disorder causing white spots is vitiligo. About 1% of the population has vitiligo that begins typically before the age of 20 years. It appears as white spots on the fingers, hands, toes and feet. The lips which are brown in dark skinned people turn pink. The depigmentation encircles the mouth and eyes. Spots appear on the trunk. It can spread to affect the entire integument. Vitiligo does not cause physical disabilities (other than susceptibility to sunburn) but can cause severe emotional distress especially for people with darker skin. Its detrimental effects on quality of life are well characterized. It is likely the singer Michael Jackson had vitiligo.

Throughout history people have sought treatments to correct vitiligo. There were severe penalties for white spots, maybe because vitiligo was confused with leprosy, a totally different disease. In early Greece, such individuals were banished for having sinned against the sun. Even today in the Middle East, young people know that vitiligo can be an impediment to finding a willing marriage partner.

The earliest treatments were rarely successful. In the sixteenth century a physician, Mercurialis, thought white spots was so offensive that blistering medications should be applied. If not helpful, then fire itself was to be applied with care taken to avoid scarring.

Early writings from the Middle East document that contact with some plants followed by exposure to sunlight could cause some repigmentation. A breakthrough came when Abdel Moneim el Mofty, MD, isolated from these plants 8-methoxypsoralen. Psoralen and exposure to **U**ltra**V**iolet light **A**, is now labeled by the acronym **PUVA**. 8-methoxypsoralen applied topically or taken by mouth followed by exposure to sunlight or artificial ultraviolet A light can stimulate much skin color to return. Fingers, hands, feet, and lips cannot respond to PUVA. More recently it was observed that narrow band ultraviolet B light (311 nm wave length) by itself is efficacious for vitiligo.

There are topical medications that can have a beneficial effect on vitiligo. Potent topical steroids, calcineurin inhibitors tacrolimus and pimecrolimus, and vitamin D have had a modicum of success.

Most recently JAK inhibitors, tofacitinib and ruxolitinib, used to treat other medical disorders, were observed to produce rapid repigmentation. Unfortunately the color disappeared when the medications were discontinued. These observations do provide clues for the development of other, newer drugs that might produce permanent repigmentation.

Some patients with vitiligo have such extensive color loss on areas like the face and neck, hands and arms that repigmentation is not possible. Such patients can be depigmented (remaining normal color removed), at least on the visible areas, so they have just one color. This is accomplished by application of 20% monobenzene for many months. Many patients consider having one color preferable to being spotted. For those who choose depigmentation, the results are excellent and they are pleased to have a single color, albeit, the austere white color of vitiligo. For these folks and all patients with vitiligo, cosmetics can be helpful to minimize the embarrassment of white spots.

Treatments for vitiligo have improved. There still is no cure nor a medication to stop its progression to new areas of skin. Were there a safe medication that could halt the progression of vitiligo permanently, the clinical and social problems arising from vitiligo would be mostly solved. The advances and new science noted bring hope that such a cure is near at hand.

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Publication

[The Medical Treatment of Vitiligo: An Historical Review.](#)

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