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## Vitiligo

### THE COMPARISON

- A** Vitiligo in a young Hispanic female, which spared the area under a ring. The patient has spotty return of pigment on the hand after narrowband ultraviolet B (UVB) treatment.
- B** Vitiligo on the hand in a young Hispanic male.

**V**itiligo is a chronic autoimmune disorder characterized by areas of depigmented white patches on the skin due to the loss of melanocytes in the epidermis. Various theories on the pathogenesis of vitiligo exist; however, autoimmune destruction of melanocytes remains the leading hypothesis, followed by intrinsic defects in melanocytes.<sup>1</sup>

Vitiligo is associated with various autoimmune diseases but is most frequently reported in conjunction with thyroid disorders.<sup>2</sup>

### Epidemiology

Vitiligo affects approximately 1% of the US population and up to 8% worldwide.<sup>2</sup> There is no difference in prevalence between races or genders. Females typically acquire the disease earlier than males. Onset may occur at any age, although about half of patients will have vitiligo by 20 years of age.<sup>1</sup>

### Key clinical features in people with darker skin tones

Bright white patches are characteristic of vitiligo. The patches typically are asymptomatic and often affect the hands (**FIGURES A and B**), perioral skin, feet, and scalp, as well as areas more vulnerable to friction and trauma, such as the elbows and knees.<sup>2</sup> Trichrome lesions—consisting of varying zones of white (depigmented), lighter brown (hypopigmented), and normal skin—are most commonly seen in individuals with darker skin. Trichrome vitiligo is considered an actively progressing variant of vitiligo.<sup>2</sup>

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An important distinction when making the diagnosis is evaluating for segmental vs nonsegmental vitiligo. Although nonsegmental vitiligo—the more common subtype—is characterized by symmetric distribution and a less predictable course, segmental vitiligo manifests in a localized and unilateral distribution, often avoiding extension past the midline. Segmental vitiligo typically manifests at a younger age and follows a more rapidly stabilizing course.<sup>3</sup>

### Worth noting

Given that stark contrasts between pigmented and depigmented lesions are more prominent in darker skin tones, vitiligo can be more socially stigmatizing and psychologically devastating in these patients.<sup>4,5</sup>

Treatment of vitiligo includes narrow-band UVB (NB-UVB) light phototherapy, excimer laser, topical corticosteroids, topical calcineurin inhibitors such as tacrolimus and pimecrolimus, and surgical melanocyte transplantation.<sup>1</sup> In July 2022, ruxolitinib cream 1.5% was approved by the US Food and Drug Administration (FDA) for nonsegmental vitiligo in patients ages 12 years and older.<sup>6,7</sup> It is the only FDA-approved therapy for vitiligo. It is thought to work by inhibiting the Janus kinase–signal transducers and activators of the transcription pathway.<sup>6</sup> However, topical ruxolitinib is expensive, costing more than \$2000 for 60 g.<sup>8</sup>

### Health disparity highlight

A 2021 study reviewing the coverage policies of 15 commercial health care insurance companies, 50 BlueCross BlueShield plans, Medicaid, Medicare, and Veterans Affairs plans found inequities in the insurance coverage patterns for therapies used to treat vitiligo. There were 2 commonly cited reasons for denying coverage for therapies: vitiligo was considered cosmetic and therapies were not FDA approved.<sup>7</sup> In comparison, NB-UVB light phototherapy for psoriasis is not considered cosmetic and has a much higher insurance coverage rate.<sup>9,10</sup> The out-of-pocket cost for a patient to purchase their own NB-UVB light phototherapy is more than \$5000.<sup>11</sup> Not

all patients of color are economically disadvantaged, but in the United States, Black and Hispanic populations experience disproportionately higher rates of poverty (19% and 17%, respectively) compared to their White counterparts (8%).<sup>12</sup>

### Final thoughts

FDA approval of new drugs or new treatment indications comes after years of research discovery and large-scale trials. This pursuit of new discovery, however, is uneven. Vitiligo has historically been understudied and underfunded for research; this is common among several conditions adversely affecting people of color in the United States.<sup>13</sup> **JFP**

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