

A white spot since birth

The lesion on the patient’s chest was asymptomatic. But what caused it—and could it be a problem?

A 13-year-old Hispanic girl came into our skin clinic with her grandmother for evaluation of suspicious moles on her arms. The grandmother was also concerned about a hypopigmented lesion on the young woman’s chest.

The patient and her grandmother said that the chest lesion had been there since birth, but it had been slowly growing over the years. The lesion was asymptomatic—there was no pruritus, bleeding, or pain. The patient was otherwise healthy and was not taking any medications.

The patient and her grandmother indicated that no one in the family had a

similar lesion. The patient had no fever or chills, nor any neurological, respiratory, cardiac, or gastrointestinal problems. The hypopigmented lesion on the patient’s chest had irregular borders and no scale (**FIGURE 1**).

There was no loss of sensation at the site and, upon applying pressure to the surrounding skin with a glass slide, the border between the lesion and normal skin disappeared.

- **What is your diagnosis?**
- **How would you manage this condition?**

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FAST TRACK

There was no loss of sensation in the hypopigmented patch.

FIGURE 1

Hypopigmented patch on chest



PHOTOS COURTESY OF RICHARD P. USATINE, MD

A 13-year-old patient had this white spot on her chest since birth, and it had gradually grown over the years. She had no pruritus, bleeding, or pain.

FAST TRACK

A Wood's lamp will not accentuate a nevus anemicus, while a fungal infection will fluoresce.

■ **Diagnosis:** **Nevus anemicus**

The patient had a nevus anemicus, which typically presents as an irregularly shaped hypopigmented patch on surrounding normal skin.¹ Sometimes there are satellite macules, as well.²

Nevus anemicus is present at birth or appears shortly thereafter. It continues to grow with the child, and it remains asymptomatic. It is usually located on the trunk—primarily on the upper chest. However, there have been cases involving the extremities, head, and neck.³ The prevalence of this condition in the United States is unknown, but it is not considered rare. It is more common in females.⁴

Although nevus anemicus is an isolated finding in normal healthy individuals, it may occur in association with genodermatoses such as neurofibromatosis, and in conjunction with nevus flammeus and Mongolian spot in phakomatosis pigmentovascularis.¹

Not a true nevus

This lesion is not a true nevus; rather, it is a congenital vascular anomaly with localized hypersensitivity to catecholamines. The vasoconstriction caused by this hypersensitivity results in skin pallor. When pressure is applied to the surrounding skin (diascopy), the border between the nevus and surrounding skin is lost due to blanching of surrounding skin.⁵

Intralesional injection of vasodilators, such as bradykinin, pilocarpine, acetylcholine, 5-hydroxytryptamine, nicotine, or histamine, fails to produce vasodilation in the affected areas.⁶ Axillary sympathetic block and intralesional injection of α -adrenergic blocking agents result in erythema.³ These findings support the conclusion that it is not a true nevus, but rather a vascular anomaly.

■ **Differential Dx includes infectious diseases**

The differential includes the following:

Hansen's disease (leprosy), caused by

Mycobacterium leprae, presents with a loss of sensation at the site of hypopigmentation. This loss of sensation is due to nerve involvement. Histopathology yields a very specific pattern of epithelioid cell granulomas around the dermal nerves.⁷

Tinea versicolor, caused by *Malassezia furfur*, has a fine scale on the hypopigmented patch. The lesion fluoresces under a Wood's lamp, and a potassium hydroxide (KOH) preparation will be positive, revealing the well-known "spaghetti and meatballs" pattern. Hypopigmentation in tinea versicolor results from the inhibition of the enzyme tyrosinase in the melanocytes.⁷

Vitiligo results from the complete absence of melanocytes. Vitiligo is rarely present at birth.

Nevus depigmentosus, also known as nevus achromicus, is a well-demarcated patch of hypopigmentation that tends to occur on the trunk or proximal extremities in a dermatomal pattern (**FIGURE 2**). It is a true nevus and diascopy will not result in the loss of the border between the hypopigmented patch and surrounding skin.⁵

■ **Make the diagnosis based on the exam**

The diagnosis of nevus anemicus is made primarily based on the history and exam. A number of techniques aid in confirming the diagnosis and excluding some of the diagnoses mentioned above.

Diascopy results in the loss of the border between nevus anemicus and normal skin.^{4,5} Anatomic nevi do not demonstrate this loss in border. Shining a Wood's lamp does not accentuate the lesion, helping to distinguish nevus anemicus from fungal infections that tend to fluoresce.

Neither friction (produced by scratching a line across both the lesion and normal surrounding skin), nor cold or heat application, induces erythema in the involved areas.² And unlike leprosy, there is no loss of sensation at the site of

FIGURE 2

Don't be fooled: This is not nevus anemicus

This is a typical nevus depigmentosus on the leg of an 11-year-old girl. Unlike nevus anemicus, it is a true nevus and diascopy will not result in the loss of the border between the hypopigmented patch and surrounding skin.

the hypopigmentation. A biopsy of the lesion is not needed, but would reveal normal histology. Melanocytes are preserved and normally distributed. Electron microscopy, while not needed, would not detect any abnormalities in the vascular structure.⁴

Nothing to worry about for our patient

Our patient required no treatment. We simply provided her with some information on the benign nature of nevus anemicus. (In addition, we dealt with the moles on her arms that prompted her visit. They turned out to be normal melanocytic nevi.)

We told the patient that if the lesion on her chest bothered her, she could hide it with concealer make-up.^{1,2} Our patient and her grandmother were happy with the explanation and did not seek further care. ■

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Disclosure

The authors reported no potential conflict of interest relevant to this article.

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While no treatment is needed for nevus anemicus, the patient may opt to cover it up with a cosmetic concealer.



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