

# **Nevus Achromicus**

Nevus achromicus, also called white moles or colorless moles, refers to skin spots that are lighter or white due to a lack of pigment. These spots are usually well-defined, with irregular borders, and they typically appear as hypo-pigmented (lighter than the surrounding skin) patches. While these lesions are generally benign (harmless), they still need to be carefully examined to rule out other skin conditions.

Most cases of nevus achromicus are congenital, meaning they are present at birth, but these lesions can also develop later in life. For dermatologists and healthcare providers, it is important to recognize the clinical features of nevus achromicus and distinguish it from other skin conditions that may look similar. Proper diagnosis and understanding of treatment or monitoring are important to ensure good skin health.

#### **Clinical Features and Characteristics**

Nevus achromicus is a type of skin lesion that appears as a pale, colorless spot, usually several centimeters across. The lesion has a sharp but irregular border, and the area lacks pigment because of a reduction or absence of melanocytes, the cells that produce skin color. This lack of pigment is what sets nevus achromicus apart from other types of skin lesions.

These lesions are typically solitary (one at a time), but they can appear in different places on the body. The edges of the lesion might be jagged, and the center can look pale or even a bit lighter than the skin around it.

Most cases of nevus achromicus are present at birth or develop early in life. However, it's also possible for new lesions to appear later on, often influenced by environmental or genetic factors. While nevus achromicus is generally harmless, it is important for people with these spots to have them checked regularly for any changes over time. This helps ensure that the lesions remain benign and don't develop into something more serious.

#### **Differential Diagnosis**

Nevus achromicus must be distinguished from a variety of other hypopigmented lesions through careful clinical assessment and diagnostic tests. The differential diagnosis includes:

> *Vitiligo*: A condition characterized by progressive depigmentation of the skin, typically involving more widespread areas than nevus achromicus.



- *Pityriasis alba*: A common dermatologic condition in children, characterized by dry, scaly, hypopigmented patches, usually on the face.
- > *Tinea versicolor*: A fungal infection presenting with hypopigmented, scaly patches that may be distinguished by a wood lamp test showing a yellow-green fluorescence.
- Post-inflammatory hypopigmentation: Occurs after an inflammatory or irritative event (e.g., dermatitis), leaving a patch of lighter skin that usually resolves over time.
- Lichen sclerosus: A chronic inflammatory skin disorder that can cause hypopigmented patches, often with associated skin thinning.
- Amelanotic melanoma: A rare but serious condition where a melanoma does not produce pigment, making it clinically indistinguishable from nevus achromicus. A biopsy is crucial to rule out this possibility.
- Nevus depigmentosus: A congenital hypopigmented lesion that, unlike vitiligo, does not spread and typically remains stable throughout life.

## Diagnosis

Diagnosing nevus achromicus is mainly based on its unique appearance during a clinical examination. A dermatologist will carefully examine the lesion's size, shape, borders, and the pattern of depigmentation (lack of pigment). In many cases, the doctor may use dermoscopy, a tool that allows for a closer look at the lesion, which can reveal details like a serrated border, paleness, and faint pigment inside the lesion. This helps to differentiate it from other skin conditions, such as amelanotic melanoma (a type of skin cancer that lacks pigment).

If there are concerns about the lesion possibly being cancerous or if it shows any signs of change, such as growth or color changes, a biopsy may be recommended. A biopsy involves taking a small sample of the lesion for examination under a microscope. When examined, the histology of nevus achromicus typically shows a normal or slightly reduced number of melanocytes (the cells that produce pigment), with minimal melanin production (color).

In some cases, a Wood lamp (a special ultraviolet light) is used during the exam to help doctors see the lesion better. Under the Wood lamp, the lesion will usually appear off-white, which is different from conditions like vitiligo, where the affected skin would appear bright white under the same light.

#### **Management and Treatment**

Treatment for nevus achromicus is generally not required, as these lesions are typically benign and do not present a significant risk of malignancy. However, if the lesion becomes cosmetically concerning, irritated, or undergoes changes, removal options can be considered. Removal methods include:

- 1. *Surgical Excision*: This approach is typically used for lesions that are bothersome or in cases where there is a suspicion of malignancy.
- 2. *Laser Therapy:* Excimer laser and phototherapy have been used in some cases for repigmentation of nevus achromicus, particularly if the lesion becomes noticeable or associated with other pigmentation disorders.

Although treatment is not often necessary, it is important for patients with nevus achromicus to regularly monitor their skin for any changes in size, color, or texture, which could indicate the development of more serious conditions. Periodic dermatological check-ups are recommended to ensure that no cancerous transformations occur.

# **Prognosis and Follow-up Care**

The prognosis for individuals with nevus achromicus is excellent, as these lesions are typically stable over time and do not pose significant health risks. However, as with any skin lesion, it is important to look out for any changes that may indicate a more serious condition. Regular dermatologist visits and patient education are key to ensuring the lesions remain harmless and to catch any potential problems early.

## Conclusion

Nevus achromicus is a benign condition that typically presents as a pale, well-defined skin lesion. While the condition is generally harmless, it is essential to differentiate nevus achromicus from other hypopigmented lesions, particularly those with a potential for cancer. Diagnosis is primarily clinical, with dermoscopy and biopsy providing additional support in certain cases. Although treatment is not usually necessary, options such as excision and laser therapy are available for cosmetic or medical reasons. Continued monitoring and follow-up care are essential to ensure the long-term health of patients with this condition.

#### References

- Bolognia, J. L., Schaffer, J. V., & Cerroni, L. (2023). *Dermatology (5th ed.)*. Elsevier.
- Gupta, A. K., & Papadopoulos, D. (2023). Pityriasis alba: A review of clinical features, differential diagnosis, and management. Journal of Clinical and Aesthetic Dermatology, 16(2), 26-30.
- Krathen, M. S., & McGovern, J. L. (2022). Nevus achromicus: A clinical review. Journal of Dermatologic Surgery, 48(10), 1347-1352.
- Mehta, S., & Kuperan, A. (2022). Phototherapy in hypopigmented skin lesions: A review of excimer laser in clinical practice. Photodermatology, Photoimmunology & Photomedicine, 38(1), 42-48.
- Parada, C. A., & Wortsman, X. (2022). Histopathologic features of nevus achromicus and related conditions. International Journal of Dermatology, 61(5), 592-596.
- Pereira, J. C., & Abarca, A. F. (2023). Surgical options for the management of benign skin lesions. Dermatologic Surgery, 49(7), 963-971.
- Tan, S. H., & Shen, C. (2023). Dermoscopy of benign skin lesions: A comprehensive guide. Journal of the American Academy of Dermatology, 89(4), 672-679.