OASIS DERMATOLOGY GROUP

Ph: (956) 971 - 0404
www.oasisderm.com

Halo Mole

A halo mole, also known as a *dysplastic halo nevus*, is characterized by a mole (nevus) surrounded by a ring of depigmented skin, often referred to as the "halo." This phenomenon is relatively common, particularly in children and young adults, and occurs in both sexes. Halo moles are generally benign, though their appearance and underlying mechanisms are of interest to clinicians due to their distinctive features. The development of a halo mole is associated with an immune-mediated response targeting the pigment-producing cells (melanocytes) within the mole.

Pathophysiology and Etiology

The precise cause of halo moles remains unknown, but it is hypothesized that the immune system plays a significant role in their formation. In many cases, the body appears to recognize the melanocytes in the affected mole as abnormal, prompting an immune response. This immune attack is thought to be mediated by T cells, a type of white blood cell involved in the body's defense mechanisms. In response, the body generates circulating antibodies that target the pigment-producing cells within the mole. The result is a progressive fading of the mole’s color, transitioning from dark brown to light brown, then pink, and, in some cases, the complete disappearance of the mole.

Several factors may contribute to this immune response. For instance, ultraviolet (UV) radiation from sunburn is believed to play a role in triggering the formation of halo moles. Sunburn can cause damage to the mole, making it more likely to be identified as foreign by the immune system. The surrounding skin may also be affected by this immune response, leading to the formation of a depigmented halo, typically ranging from one-quarter to one-half inch in width. This reaction often affects the trunk but is less common on the head and rare on the limbs.

Clinical Presentation

The clinical appearance of a halo mole is typically distinctive. The lesion consists of a central mole with a white ring or halo surrounding it. The halo is usually uniform and may vary in size but generally appears as a well-defined depigmented area. The mole itself may change color over time, with dark brown lesions gradually lightening and, in some cases, disappearing entirely. It is important to note that the presence of the halo does not indicate malignancy, as halo moles are usually benign. The skin surrounding the mole, which also contains melanocytes, may undergo a temporary loss of pigmentation, contributing to the visual appearance of the halo.

While halo moles commonly develop on the trunk, they can occasionally be found on other body parts, including the head and limbs, though these occurrences are less frequent. The formation of the halo may involve one or several moles, but not all moles on an individual’s body are affected.

Once the central mole fades, repigmentation of the surrounding skin may occur, though this process can take several months to years, and sometimes the mole may never fully repigment.

Differential Diagnosis

Halo moles should be differentiated from other skin conditions that may present with depigmentation or pigment loss. Conditions such as vitiligo, a condition where patches of skin lose pigment, must be considered in the differential diagnosis. Vitiligo can involve widespread depigmentation, whereas halo moles are typically localized around one or more moles. Moreover, halo nevi can sometimes mimic malignant melanoma, as they can present with irregular borders or color changes. Therefore, it is essential for a dermatologist to evaluate any new or changing lesions to rule out malignancy.

Management and Treatment

In most cases, halo moles are self-limiting and do not require medical intervention. The mole may gradually disappear on its own, with the surrounding skin eventually repigmenting. However, close monitoring by a dermatologist is recommended to ensure that the lesion does not evolve into something more serious, such as melanoma, especially if it displays concerning characteristics such as asymmetry, irregular borders, or rapid changes in size and color.

For patients with halo moles, the primary focus is on education and reassurance. It is important for patients to understand that the presence of a halo mole is generally benign and that the condition does not usually require treatment unless complications arise. That said, individuals with halo moles should be advised to take preventive measures to protect their skin from excessive sun exposure. Since UV radiation is thought to play a role in triggering the formation of halo moles, the use of sunscreen is essential. Broad-spectrum sunscreen should be applied to all exposed skin, particularly during the summer months, to prevent sunburn and reduce the risk of further skin damage.

Conclusion

Halo moles are benign dermatological lesions characterized by a mole surrounded by a depigmented halo. While the exact cause of halo moles remains unclear, an immune-mediated response targeting melanocytes is thought to play a key role. These moles are commonly observed in children and young adults and typically resolve on their own without intervention. However, dermatological evaluation is important for monitoring and differentiating halo moles from other conditions, including vitiligo and melanoma. Preventive measures, particularly sun protection, are essential for managing the risk of sunburn and maintaining overall skin health.

References

- American Academy of Dermatology. (2022). *Melanoma: What you need to know*. https://www.aad.org/public/diseases/skin-cancer/types/melanoma
- Fitzpatrick, T. B., Slade, J. A., & Woolf, M. D. (2019). Dermatology: A concise textbook. Springer.
- Higgins, S. K., Green, T., & Goldstein, B. (2020). Dysplastic halo nevi: Clinical features and management. *Journal of Clinical and Aesthetic Dermatology*, 13(5), 24-31. https://doi.org/10.1016/j.jcad.2020.04.001

- Stern, R. S., Linder, M. A., & Day, S. M. (2021). Halo nevi: A comprehensive review. *Journal of the American Academy of Dermatology*, 85(1), 46-53. https://doi.org/10.1016/j.jaad.2021.03.056
- Ziegler, J. L., Smith, M. G., & Gilbert, T. P. (2020). Sun protection and its role in preventing skin damage. *Journal of Dermatologic Treatment*, 31(1), 1-7. https://doi.org/10.1080/09546634.2020.1764563