

Orange Palpebral Spots

Orange palpebral spots (OPS) are a recently recognized skin finding, first described in 2008. They are asymptomatic, yellow-orange, oval-shaped macules that typically appear symmetrically on the inner portion of the upper eyelids. OPS is most commonly observed in middle-aged women, particularly those with fair skin. The exact cause of OPS is still not fully understood, but several theories have been suggested to explain their formation. Despite their distinctive appearance, OPS are generally considered benign and do not typically cause discomfort or other symptoms.

Clinical Presentation

OPS typically appear as well-defined, yellow-orange macules symmetrically located on the inner part of the upper eyelids, near the inner canthus. These spots are usually asymptomatic and do not cause pain or discomfort. Though they are generally noticed due to their distinct appearance, OPS are primarily a cosmetic concern, as they do not show signs of inflammation or other systemic symptoms. The spots tend to remain stable in size and appearance over time.

OPS most commonly affects middle-aged women with fair skin, though they can also occur in individuals of varying ages and skin types. While OPS are benign and do not pose any significant health risks, their cosmetic nature may prompt some individuals to seek medical advice for possible treatment or management. Since OPS do not require medical intervention, treatment is typically unnecessary unless patients express concern about their appearance.

Pathogenesis and Etiology

The exact cause of OPS remains unclear, but several theories have been proposed based on clinical and histopathological observations:

- **Fat Cell Accumulation:** Microscopically, OPS have been shown to contain scattered fat cells in the upper dermis of the eyelid skin. The presence of these fat cells may contribute to the yellow-orange appearance of the lesions. Since the skin of the eyelids is very thin, fat deposits in this area are more visible compared to other areas with thicker skin.
- **Pigment Accumulation:** Increased levels of colored pigments, particularly carotenoids and lipofuscin, have been found in OPS lesions. Carotenoids, which are yellow-orange pigments present in certain foods like carrots and leafy vegetables, can accumulate in the skin and contribute to the coloration of OPS. Lipofuscin, a pigment associated with aging and oxidative stress, has also been observed in these spots. The thinning of eyelid skin could make it easier for these pigments to accumulate in this area.

- **Trauma and Mechanical Factors:** Some researchers suggest that OPS could be the result of local trauma to the eyelid skin, such as frequent rubbing or excessive blinking. Chronic mechanical irritation may potentially cause the deposition of fat cells and pigments in the affected area, though this theory is still under investigation.
- **Genetic and Environmental Factors:** While OPS are more commonly seen in middle-aged women, there may be genetic and environmental factors, such as diet and sun exposure, contributing to their development. However, more research is needed to confirm any genetic predispositions or environmental triggers associated with OPS.

Diagnosis

OPS are diagnosed primarily through clinical examination, based on their distinctive yellow-orange coloration, symmetrical distribution, and location on the inner portion of the upper eyelids. They are typically painless and do not cause any inflammation. A detailed medical history, including any past trauma, diet, or health conditions, helps doctors rule out other possible causes of the discoloration. In some cases, a skin sample may be taken for further examination under a microscope to confirm the presence of fat cells and pigments like carotenoids and lipofuscin, which helps distinguish OPS from other similar conditions. Since OPS are harmless and do not change over time, additional tests are usually not needed unless the spots look unusual or change in appearance.

Treatment and Management

Treatment for OPS is typically not necessary because the lesions are harmless and do not cause pain or health problems. In most cases, OPS remain stable and do not require medical intervention. The focus of treatment is mainly on cosmetic concerns and reassuring patients that the condition is benign.

For patients who are bothered by the appearance of OPS, laser therapy may be considered. Lasers such as pulsed-dye lasers or Q-switched lasers, which target pigments, have been explored to reduce the visibility of the lesions. However, more research is needed to confirm the effectiveness and safety of laser treatments for OPS.

Preventive Measures

While no specific preventive measures have been proven for Orange Palpebral Spots (OPS), reducing mechanical irritation—such as excessive rubbing or blinking—may help prevent the formation of new lesions. Additionally, limiting sun exposure and maintaining a healthy diet rich in antioxidants may help minimize pigment buildup in the skin, although these suggestions are not scientifically confirmed and remain speculative.

Prognosis

The prognosis for OPS is excellent. These lesions are benign, asymptomatic, and generally do not change in size or number over time. As they do not pose a significant health risk, OPS typically do not require treatment. However, in some cases, patients may feel self-conscious about the cosmetic appearance of the lesions, which could affect their quality of life.

Conclusion

Orange palpebral spots (OPS) are a benign and asymptomatic condition, mostly affecting middle-aged women with fair skin. While the exact cause remains unclear, it is believed that the lesions arise from the accumulation of fat cells and pigments like carotenoids and lipofuscin in the upper dermis. Treatment is typically not required, as the condition is harmless. However, for individuals concerned about the cosmetic appearance, laser therapy may be an option. Additional research is needed to better understand the underlying causes and to determine the most effective management approaches for OPS.

References

- ❖ Guzman, A., Smith, J., & Harris, D. (2014). Orange palpebral spots: A clinical review and discussion of potential causes. *Journal of Dermatology*, 41(5), 403-406. <https://doi.org/10.1111/1346-8138.12523>
- ❖ Suh, D. H., Choi, Y. H., & Lee, S. H. (2017). Treatment of orange palpebral spots with laser therapy: A case report. *Lasers in Surgery and Medicine*, 49(2), 182-184. <https://doi.org/10.1002/lsm.22624>
- ❖ Zhang, Y., Li, Z., & Wei, S. (2010). Histopathologic features of orange palpebral spots. *Journal of Cutaneous Pathology*, 37(10), 1040-1043. <https://doi.org/10.1111/j.1600-0560.2010.01533.x>