

## CASE REPORT

# Orange Palpebral Spots in an Asymptomatic 48-year-old Female

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## Introduction

Skin discoloration can be a sign of many disease processes often with the location of such suggesting its underlying pathology. The palpebra can be a site of disease manifestation and given its thin structure, dermal and hypodermal abnormalities can become visible [1]. Congenital, metabolic and hormonal derangements are a few of the causes for palpebral discolorations [2,3]. Aside from biological causes, environmental and cosmetic applications can cause alterations in skin pigmentation. Orange palpebral spots (OPS) has been reported in dermatologic and ophthalmologic literature with no clear etiology confirmed [4,5]. Assouly et al reported 27 cases of OPS, none of which identified a definitive underlying mechanism after laboratory workup for lipid, hormonal and vitamin imbalances. OPS is often mistaken for hyperlipidemia syndromes as the yellow-orange palpebral spots resemble xanthelasma [6-8]. As reported in Assouly et al, 9 out of the 10 cases biopsied showed high-situated fat cells in the reticular dermis, and 1 case revealed microgranular deposits, likely lipofuscin, located in the superficial dermis, yet no patient had an underlying hyperlipidemic syndrome. As stated previously, due to the thin palpebral skin, non-pathological, intradermal deposits are prone to be more visible in this area of the face, making discoloration possible. There are many hypotheses regarding the occurrence of OPS, but current literature does not support a definitive etiology. There have been no reports in current literature associating OPS with malignancies or systemic illnesses. This report describes another case of orange palpebral spots in a young, healthy female.

## Case Report

A 48-year-old female presented to clinic with a 15-year history of yellow-orange macular lesions on her bilateral superior eyelids (Figure 1). The lesions are not painful and have not been treated previously. The patient had been using a cosmetic foundation application to cover up the lesions for several years. Milia have been present on the patient's forehead for which she has taken Tretinoin 0.05% cream. The milia were incised and drained and the patient was prescribed Tretinoin 0.1% cream to be applied nightly in addition to daily Tretinoin 0.05% cream. The patient does not have a medical history that



Figure 1: Bilateral yellow-orange superior palpebral macules

would suggest an etiological reason for these orange palpebral spots. Biopsies were not taken from the patient.

## Discussion

We report this case to inform clinicians of this perplexing dermatological finding that has previously been reported in the literature. The etiology of OPS has remained elusive to many dermatologists and ophthalmologist with laboratory and biopsy results providing no pathological explanation. As described in Assouly et al and Belliveau et al, biopsies performed on patients demonstrated lipid deposition in the dermis but not the pathognomonic finding of lipid-laden macrophages seen in xanthelasma formation. It is reasonable to suspect an underlying metabolic process when a patient presents with eyelid discoloration, however, the patient in the case we report did not have a history of any endocrine or metabolic abnormalities that could help justify the formation of these macules. Belliveau et al states that the varying degree of adipose tissue in this region could explain the change in color, however, they note that this is only speculative. Identifying OPS in patients remains challenging due to the ambiguity of its formation and subtle presentation. The purpose of this case is to bring attention to this convoluted finding and encourage other clinicians to report similar instances in an effort to establish a likely cause.

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