

## Cosmetic & Pharmaceutical Research > Cosmetic & Pharmaceutical Research > Pigmentation / Melasma

# 22

**Dermoscopic and reflectance confocal microscopic features of exogenous ochronosis.**

*Gil I, Segura S, Martínez-Escala E, Lloreta J, Puig S, Vélez M, Pujol RM, Herrero-González JE.; Arch Dermatol. 2010 Sep;146(9):1021-5.*

### **ABSTRACT**

**BACKGROUND:** Exogenous ochronosis presents as an acquired asymptomatic hyperpigmentation on photoexposed areas, predominantly over bony prominences, and is caused by the topical application of several skin-lightening agents.

**OBSERVATIONS:** We describe a 63-year-old Hispanic woman who developed exogenous ochronosis lesions on her face after using topical bleaching creams containing hydroquinone, 2% to 3%, and oxybenzone, 2%, for several years. Dermoscopy revealed irregular brown-gray globular, annular, and arciform structures that corresponded to focal deposition of ochronotic pigment on the dermis. These deposits correlated with multiple banana-shaped nonrefractile structures seen using reflectance confocal microscopy. Histopathologic sections revealed the deposition of a banana-shaped, yellow to brown material in the papillary and middle dermis. Ultrastructural examination revealed an amorphous electron-dense material mostly located in the core of elastic fibers and also in smaller amounts in the interstitium with prominent degenerative changes in the elastic fibers. A good correlation was observed between the results of both noninvasive techniques and the diagnostic histologic features of this condition.

**CONCLUSIONS:** We characterized by means of dermoscopy, reflectance confocal microscopy, and electronic microscopy a case of exogenous ochronosis. To our knowledge, this is the first description of reflectance confocal microscopic findings in this condition. Dermoscopy and reflectance confocal microscopy are proved to be useful noninvasive techniques for the diagnosis of this pigmentary disorder.