PIGMENTATION

EXOGENOUS OCHRONOSIS IN TWO FILIPINO FEMALES, SHOWING VARIABLE CLINICAL AND MACROPHAGE RESPONSE AFTER TREATMENT WITH LOW DOSE ISOTRETINOIN AND NANOSECOND Q SWITCHED ND:YAG LASER

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Background: Hydroquinone remains to be the gold standard of treatment for hyperpigmentary conditions. However, it has become prone to misuse and more cases of hydroquinone-induced exogenous ochronosis (EO) has been observed lately.

Observation: We report 2 Filipino female cases of Exogenous Ochronosis, presenting with, hyperpigmented patches on the face associated with prolonged use of over-the-counter hydroquinone 2% and tretinoin 0.025% solutions. Upon consult, physical examination showed multiple hyperpigmented patches with confetti-like depigmentation on the face. No pigmentation on the eyes and ears were noted. Dermoscopy showed, blue-gray amorphous areas obliterating some follicular openings. Histopathology revealed, mild pigment incontinence, solar elastosis, and brownish-yellow (ochre) “banana shaped” fibers in the papillary dermis, consistent with a diagnosis of exogenous ochronosis. Patients were advised to discontinue previous medications and continue the sunscreen. Both patients were started on low dose isotretinoin at 10mg/day with noticeable improvement in skin texture and color after 1 month of treatment. A 2-step laser procedure with the use of Q-switched Nd:YAG and fractional CO2 laser was initiated on the 2nd month of treatment using dual laser toning and low fluence fractional laser parameters. Immunohistochemistry for both patients showed variable macrophage response. Although CD68 stain were positive on both patients, the early stage exogenous ochronosis revealed more numerous macrophages indicating good prognosis on the treatment while late stage exogenous ochronosis revealed fewer macrophages indicating the chronicity of the disease and poorer prognosis in treatment

Key message: To date, the pathogenesis of EO is still poorly understood. The goal of treatment is to fragment and increase the clearance of ochronotic pigments, and repair the damaged dermis. Low dose isotretinoin in combination with pigment and fractional lasers might be able to address most of the pathologic features of EO, however more subjects are needed to validate the overall effect of this recommended management.