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Treatment of Melasma with Potent Topical Corticosteroids

Melasma in a pattern of acquired hypermelanosis seen mostly in women of child-bearing age and occasionally in males occurring on sun-exposed areas. It is often considered either as a physiological change in pregnancy, or oral contraceptives are incriminated. The condition may fade after delivery but is often persistent [1]. Distribution-wise, the lesions are centrofacial (63%), malar (21%) and mandibular (16%) [2]. On Wood's lamp examination, melasma is classified as epidermal, dermal and compound (epidermal and dermal). Histopathologically, the pigmentation is either epidermal or dermal. This differentiation has clinical significance as epidermal pigmentation responds better to therapy whereas dermal pigmentation is usually resistant to all forms of treatment. Kligman and Willis [3] reported good response with a combination of 0.1% tretinoin, 5% hydroquinone and 0.1% dexamethasone, but depigmentation was not attainable when any of the components was omitted; however, a double-blind study with 2% hydroquinone and 1% retinoic acid without any corticosteroid produced an equally good response [2].

We recently treated 10 patients with melasma (7 females and 3 males) with a potent topical corticosteroid, i.e. clobetasol

propionate (0.05%). The ages of the patients ranged from 20 to 40 years, and the duration of melasma was from 3 to 14 months. Of 10, 5 had centrofacial, 4 malar and 1 mandibular patterns of distribution. None of the female patients were pregnant or on oral contraceptives at the time of examination or in the preceding 6 months. Patients were instructed to apply clobetasol propionate (0.05%) cream topically initially twice daily for 4 weeks followed by once daily for another 4 weeks. In all patients fading of pigmentation was observed after 2 weeks, and it was more discernible after 4–6 weeks. Eighty to ninety percent clearance of pigmentation was observed after 6–8 weeks in 7 patients; in 3 therapy had to be stopped after 4 weeks because of local atrophy and telangiectasiae. In addition to the topical corticosteroid, patients were advised to use a sun screen. In 4 of 7 patients in whom the pigmentation had cleared, it reappeared at the same sites after about 2–3 weeks after stopping the treatment and gradually progressed to pretreatment state during the next 4–6 months of follow-up.

Though Wood's light and histopathological examination were not done to categorize the therapeutic response, initial clearance of

pigmentation with clobetasol propionate was encouraging though the success was short-lived. Kligman and Willis [3], however, failed to find any beneficial effect of only topical corticosteroids. How corticosteroids promote depigmentation is a matter of conjecture. Probably these suppress secretory metabolic products from the melanocytes without causing their destruction [3]. This may explain their short-lived effect. We plan to study more patients and use 5% hydroquinone alone after 8 weeks of topical corticosteroids to sustain the effect after the desired degree of lightening is obtained as suggested by Kligman and Willis [3].

References

- 1 Bleehen SS, Ebling FJG, Champion RH: Disorders of skin colour; in Champion RH, Burton JL, Ebling FJG (eds): Textbook of Dermatology. Oxford, Blackwell Scientific Publications, 1992, vol 3, pp 1596–1597.
- 2 Sanchez NP, Pathak MA, Sato S, et al: Melasma: A clinical, light microscopic, ultrastructural and immunofluorescence study. *J Am Acad Dermatol* 1981;4:698–710.
- 3 Kligman AM, Willis I: A new formula for depigmenting human skin. *Arch Dermatol* 1975;111:40–48.