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Face skin hyperpigmentation during pegylated interferon and ribavirin therapy

To the Editor;

Cutaneous hyperpigmentation may be caused by a number of diseases, such as Addison's disease, scleroderma, haemochromatosis, Peutz-Jeghers syndrome, lichen planus, and adverse reactions to some medications such as oral contraceptives, cyclophosphamide, chloroquine, minocycline, bleomycin, ketoconazole and methyldopa (1). Hyperpigmentation of the tongue, face and body skin is a rare adverse effect of interferon (IFN) and ribavirin combination therapy.

A 52-year-old man was referred for incidental detection of chronic hepatitis C, genotype 1. Viral load was 13.500.000 IU/mL. A liver biopsy showed 4/6 fibrosis. Treatment was initiated with subcutaneous pegylated IFN (Peg-IFN) α-2a injections on a weekly basis and oral ribavirin 800 mg daily. At 2 weeks after starting the therapy, the patient noticed brown pigmetation on his face, which gradually increased until the end of the course of therapy (48 weeks) (Figure 1). There were no other areas of involvement. A biopsy was taken from the face skin and increased numbers of melanocytes were observed in the basal layer of the epithelium (Figure 2). Informed consent was taken from the patient about this publication.

Generally, there are only heterogenous, mild, cutaneous side effects resulting from IFN and ribavirin treatment, although on very rare occasions, severe reactions can occur. While injection-site reaction is the most frequently seen cutaneous side-effect of IFN, transient alopecia, vasculitis, cutaneous necrosis, lichen planus and psoriasis have also been reported (2). The combination of oral ribavirin with Peg-IFN (either alfa-2a or-2b) has been associated with alopecia, pruritus, dermatitis, dry skin, increased sweating, and generalized morbiliform rash. Hyperpigmentation of the tongue, face or body skin has been mainly described in dark-skinned patients. Although it is usually asymptomatic, there may be a burning sensation and onset generally develops in the first weeks and disappears after the end of the therapy. The mechanism is not fully known, but it is thought

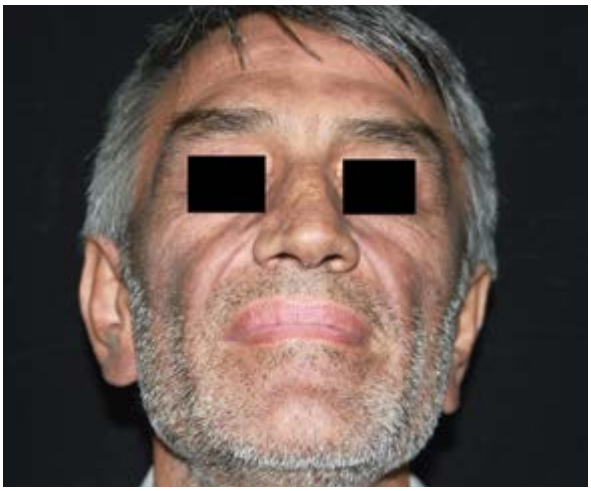

Figure 1. Hyperpigmentation of the face.

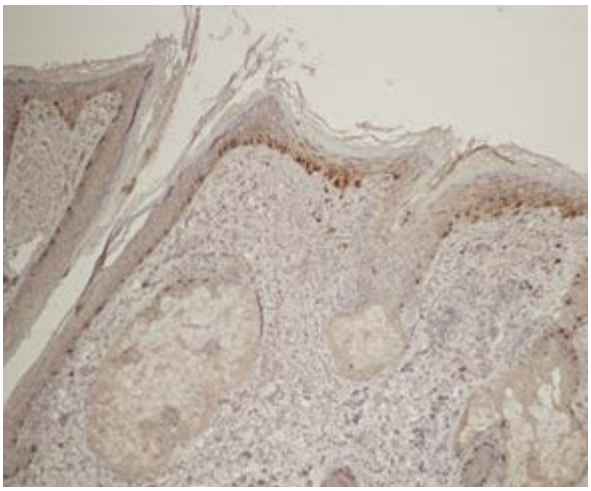

Figure 2. Increased numbers of melanocytes stained with MELAN A in the basal layer of the epithelium (MELAN A x 200).

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that IFN may upregulate the melanocyte-stimulating hormone receptors, thereby increasing the activity of melanocytes and thyrosine, which are the main precursors of melanin (3). As the condition resolves when therapy is finished, it is not thought necessary to discontinue the medication.

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Informed Consent: Written informed consent was obtained from the patient who participated in this study.

Peer-review: Externally peer-reviewed.

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