

## Answers to Dermato-venereological Quiz on page 98

1. Differential diagnoses include: a) drug-related causes: drug-induced dyspigmentation, photo-allergic drug reaction; b) non-drug related causes: post-inflammatory hyperpigmentation, other metabolic or endocrine abnormalities e.g., porphyria, haemochromatosis, Addison's disease.
2. The most likely diagnosis is drug-induced hyperpigmentation.
3. The most likely cause is minocycline-induced hyperpigmentation, which occurs in 2.4%-14.8%<sup>1</sup> of patients on chronic treatment, mostly commonly for acne and rosacea. This gentleman has been taking minocycline 100 mg for the past 6 months.

There are three distinct types of minocycline-induced hyperpigmentation:

Type I: blue-grey pigmentation on the face in areas of scarring or inflammation associated with acne; type II: blue grey pigmentation on the normal skin of pretibial area or forearms; type III: diffuse muddy-brown discolouration over sun-exposed areas.

Histologically, type I and II stain for iron and melanin extracellularly and within macrophages in the dermis. Type III shows non-specific increase in melanin in basal keratinocytes and dermal macrophages staining for melanin only.

For the prognosis, type I and II tend to resolve slowly over time whereas type III tends to persist indefinitely.<sup>2</sup>

4. Treatment includes early recognition, discontinuation of the drug and sun protection. Topical hydroquinone and Q-switched laser have been proposed for persistent pigmentation but the result is variable.<sup>3</sup> It is essential to counsel patients on the possible side effects especially disfiguring dyspigmentation when starting them on chronic treatment of minocycline or any tetracycline derivatives.

## References

1. Mouton RW, Jordaan HF, Schneider JW. A new type of minocycline-induced cutaneous hyperpigmentation. Clin Exp Dermatol 2004;29:8-14.
2. Eisen D, Hakim MD. Minocycline-induced pigmentation: Incidence, prevention, and management. Drug Saf 1998; 18(6):431-40
3. Green D, Friedman KJ. Treatment of minocycline-induced cutaneous pigmentation with the Q-switched Alexandrite laser and a review of the literature. J Am Acad Dermatol 2001;44(Suppl 2):342-7.