

Editorial

Melasma: a difficult to treat condition

Melasma is a common pigmentary condition with a prevalence of 1-50% depending on the population studied and is more common in darker skin individuals of Fitzpatrick skin type IV to VI. Classified into epidermal, dermal and mixed subtypes depending on the level of involvement, it is a difficult condition to treat as well being associated with a high recurrence rate. Although, women are affected more often, 10% of cases are males. As melasma affects the face, it has been reported to result in significant psychological morbidity including depression, stress and low self-esteem.¹ The prevalence of anxiety in melasma has been to be as high as 11.6%.² Adjustment disorders were also found to be more common in patients with melasma.¹ Melasma has even led to suicidal ideation in some cases. Therefore, although not life-threatening in most cases, given the high prevalence of melasma and potentially high psychological burden, the treatment of melasma is important.

Current treatment options include topical treatment, chemical peels, and laser therapy. Hydroquinone is the most commonly used topical treatment and is often prescribed as part of the modified Kligman regime. However, apart from possible exogenous ochronosis, it is also a derivative of benzene, an agent which can lead to leukaemia. There have therefore been concerns about the safety of hydroquinone from regulatory authorities. However, to date, there have been no reports of malignancy associated with hydroquinone.³

Even so, there has been research into other therapeutic options such as vitamin C, azelaic acid and kojic acid. Although these have shown some efficacy, they are also associated with side effects such as irritation or dermatitis. Oral agents such as tranexamic acid and *Polypodium leucotomos* have also shown to be efficacious in melasma. However, both agents have been associated with gastrointestinal upset and there have been concerns of thromboembolic complications with tranexamic acid. Sequential treatments, for example using triple-combination cream and glycolic acid peels have also been investigated.⁴

Lasers are considered to be second-line treatment as the response is unpredictable with a high recurrence rate. A few studies have suggested that low-fluence 1064 nm Q-switched Nd: YAG laser may be effective in melasma.⁵ However, due to the small patient numbers, it is hard to draw any definitive conclusions. Another problem is that facial depigmentation may occur after laser therapy.⁶

In this issue, Butt et al have shown that topical 4% hydroquinone cream is more effective but with more side effects as compared to combination of 10% glutathione plus 5% ascorbic acid. Therefore, no topical agent has been found to be superior to hydroquinone in terms of efficacy. When faced with a patient with melasma, in the clinic, it can be difficult if

there has been minimal response after a prolonged period of treatment. As a result, it becomes increasingly difficult to persuade the patient to persevere with the treatment. Further research on treatments for melasma is therefore needed. As melasma is a heterogeneous condition, the response to treatment is likely to vary between patients but for all cases, sun protection remains essential. At the same time, we should more aware of the potential psychological burdens of this condition.

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References

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