

Pigmented Demodicosis: Non-Invasive Skin Imaging of a Rare Entity

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Case report

A 32-year-old, Fitzpatrick phototype III woman presented with a 10-year history of diffuse facial hyperpigmentation, associated with slight burning sensation. The patient did not have any comorbidities but her previous medical history revealed episodes of intense ultraviolet exposure. Her facial hyperpigmentation was previously interpreted as melasma so she underwent topical and medical peeling treatments, without any improvements.

At clinical observation, the patient showed diffused hyperpigmentation on the face (Figure 1A). Dermoscopy revealed perifollicular hyperpigmentation on an erythematous background, with dilated follicular openings and structures suggestive for demodex tails (Figure 1B). Additionally, RCM

confirmed the presence of demodex (Figure 1 C). Due to recent description of super high magnification dermoscopy pattern corresponding to demodex presence inside the hair follicle, we decided to further explore this rare case of pigmented demodicosis (PD), highlighting the presence of white linear structures inside hair follicles (Figure 1 D) [1]. Treatment with topical ivermectin was suggested.

Teaching Point

PD diagnosis has been probably underestimated in the past due to a difficult differential diagnosis with lupus, contact dermatitis, idiopathic hyperpigmentation [2]. Hyperpigmentation in PD has been associated to demodex, even if the pathogenesis has yet to be defined, as confirmed by

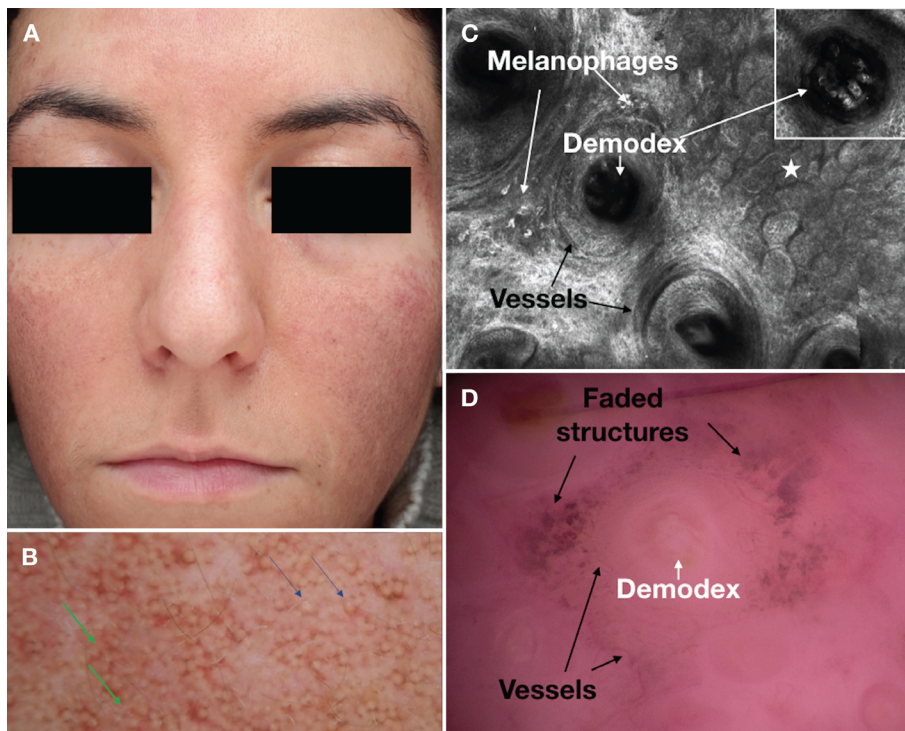


Figure 1. (A) Clinical picture in frontal view. (B) Dermoscopic picture showing dilated hair follicles (blue arrows) and demodex tails (green arrows). (C) Reflectance confocal microscopy highlighting demodex inside the hair follicle (a detail in the upper white square), melanophages, vessels, bulbous projections (white star). (D) Super high magnification picture revealing demodex inside the hair follicle, faded structures, and vessels.

the improvement of hyperpigmentation after ivermectin treatment.

In conclusion, the clinical combination of hyperpigmentation, erythema and rough skin surface should raise the suspicion of PD, that should be confirmed with the presence of demodex, revealed with non-invasive skin imaging in our case. Clinicians should be aware about this clinical entity and demodicosis should be added to the list of causes of facial hyperpigmentation.

References

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