MELASMA – Dermoscopy & Histopathology
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Dermoscopic features of melasma

- Diffuse pigmentation
- Accentuation of the pseudo-rete pattern
- +/- telangiectasia
- no obliteration of follicular openings

- Dermoscopy is best used
  - as an adjunct to clinical evaluation
  - to exclude other causes of facial pigmentation such as lichen planus pigmentosus, ochronosis, hori's neavus etc.

Histological/immunohistochemical features of melasma

- Increase epidermal melanin
- Hypertrophied melanocytes
- Solar elastosis
- Increased expression of inflammatory mediators
- Basal keratinocytes have altered nuclear form and chromatin texture

- Vascular characteristics are important to note – these relate to the type of melasma noted clinically and the possible response to therapeutics directed at the vascular component of melasma such as tranexamic acid and vascular laser

Additional References:
- Brianzi G et al. Changes in nuclear morphology and chromatin texture of basal keratinocytes in melasma. JEADV 2014
- Na et al. Effect of tranexamic acid on melasma: a clinical trial with histological evaluation JEADV 2013