Key considerations for clinicians when assessing and managing children with atopic dermatitis who have skin of colour:

A practical toolkit.

Assessment

Atopic dermatitis (AD) presents differently in children with skin of colour (SOC) with clinical manifestations as follows:

- Poorly demarcated violaceous, grey (see figures 1-3).
- Early and more significant lichenification (see figures 2-4).
- Micro-papules centred around hair follicles (called follicular prominence) (see figure 5).
- Postinflammatory dyspigmentation as the AD resolves (see figures 6 and 8).
- Psoriasiform variants (in those with Chinese background), lichenoid variants (more common in those of African background).

Grey is seen instead of erythema (red) in richly pigmented skin (see figure 1 and 2). This is important when assessing severity of disease and scoring AD using traditional severity assessment tools such as the Eczema Area and Severity Index (EASI). Erythema may be difficult to appreciate or even absent in richly pigmented skin. Reliance on erythema risks underestimating disease severity in this demographic.

A greyscale in place of erythema may offer greater accuracy in the assessment of AD severity in those with SOC. Increasing the erythema score by 1 point in patients with SOC has also been suggested to avoid underestimation of eczema severity in this group.

Unique complication: Postinflammatory dyspigmentation (lightened or darkened skin over a previously inflamed eczematous lesion) is common and often causes distress and worry about appearance for the affected individual and their family. This should be actively discussed at the initial medical consultation and self-resolution in the paediatric population should be encouraged.

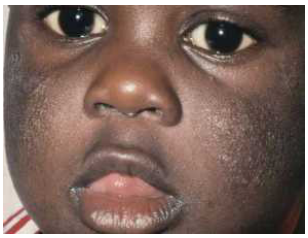

Figure 1

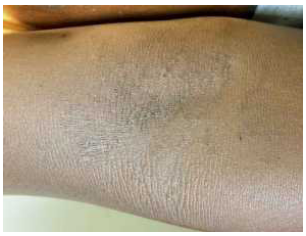

Figure 2

Secondary cutaneous manifestations include:

- Dennie-Morgan folds – Infraorbital fold creases often with surrounding dyspigmentation.
- Prurigo nodularis – firm, pruritic, abraded, thickened, often dyspigmented nodules (see figure 7).

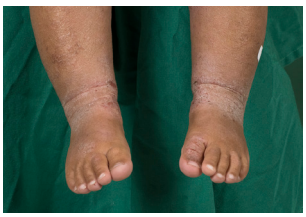

Figure 3

Differential diagnoses unique to children with SOC include:

- Psoriasis
- Tinea
- Lichen planus
- Lichen nitidus
- Cutaneous T cell lymphoma

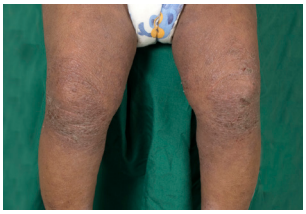

Figure 4

Management

- Daily general eczema measures are recommended.
  - A daily bath or shower, short, lukewarm, with a bath oil or soap-free wash.
  - Moisturise daily with a cream, thick cream or ointment.
  - Avoid overheating – choose cotton clothing and do not over dress the child.
  - Aim to have room temperatures between 18-23 degrees.
- Liberal application of topical steroid is recommended for treating eczema in all patients regardless of age and eczema severity. A more potent steroid such as Betamethasone dipropionate 0.05% is often required for more moderate to severe disease on the body including lichenified eczematous plaques and prurigo nodules.
  - Treatment induced hypopigmentation is common and should be discussed with parents; self-resolution is seen in all cases over weeks to months.
- Phototherapy is an effective treatment for many patients with SOC if the child is able to stand unaccompanied in the phototherapy booth. Treatment is rebatable through Medicare, but out of pocket costs may vary from state to state and centre to centre.
- Skin scrapings may be needed to exclude dermatophytic fungal infection and scabies.
- Skin biopsy is rarely needed to exclude other differential diagnoses including lichen planus and fungal infection.
- For facial eczema with postinflammatory hypopigmentation, a longer term non steroid alternative such as pimecrolimus may be required, as very mild flares of eczema may result in distressing pigment change.

Teaching points for families

- Discuss the likelihood of dyspigmentation at the time of commencing topical corticosteroids so families are aware of this.
- Emphasise the importance of skin texture and symptoms rather than colour as a marker of eczema control.
- Hypopigmentation may be seen with potent topical steroids.
  - Potent topical steroids are often needed in children with SOC who have moderate to severe atopic dermatitis.

References

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Acknowledgement of contribution to this resource

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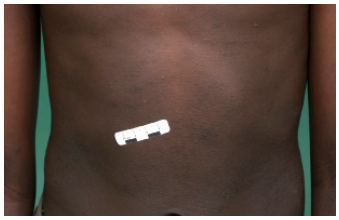

Figure 5

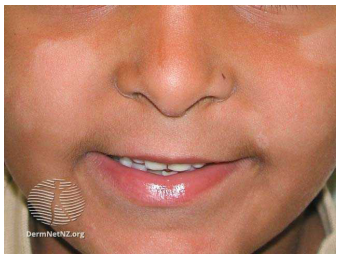

Figure 6

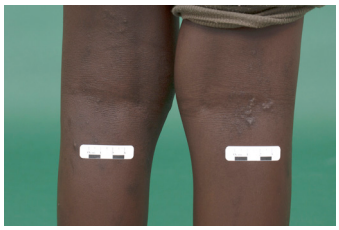

Figure 7

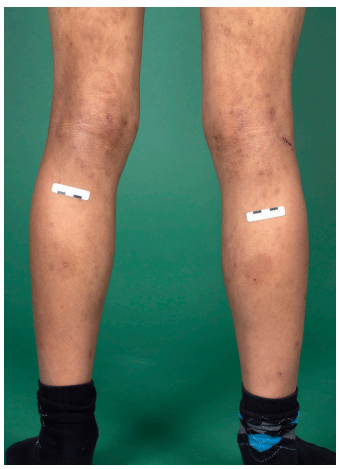

Figure 8

Figures 1,2 and 6 supplied by DermNet
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