Dermoscopy of Erythrodermic Pityriasis Rubra Pilaris

Dermatology consultation was sought for an elderly female with erythroderma. On examination, diffuse erythema with loosely adherent grevish-white scales, discrete follicular keratotic papules, and multiple islands of sparing was observed [Figure 1a]. palmoplantar Diffuse keratoderma of palms and soles was also present. On histopathology (H and E, ×200), psoriasiform acanthosis, alternating bands of orthokeratosis and parakeratosis, and follicular keratinous plugs were seen [Figure 1b]. Dermoscopic evaluation performed using a Dermlite II Hybrid M Dermoscope at 10× magnification in polarized mode revealed whitish keratotic follicular plugs surrounded by yellowish-red areas and multiple linearly arranged and dotted vessels arranged in an irregular pattern [Figure 2]. A definite diagnosis of erythroderma secondary to pityriasis rubra pilaris (PRP) was established based on the above features.

Erythroderma secondary to PRP is often difficult to differentiate from other causes of erythroderma, especially psoriasis. Whitish keratotic plugs, yellowish red background, and linearly arranged and dotted peripheral vessels are dermoscopic features of PRP and differs from that of psoriasis which shows silvery white scales, uniformly distributed red dots on a background of

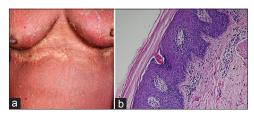


Figure 1: (a) Diffuse erythema with loosely adherent greyish-white scales, discrete follicular keratotic papules, and multiple islands of sparing. (b) Histopathology (H and E, ×200) demonstrating psoriasiform acanthosis, alternating bands of orthokeratosis, and parakeratosis and follicular keratinous plugs

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salmon red erythema.^[1] The keratotic plugs and perifollicular scaling seen on dermoscopy corresponds to the follicular plugs along with hyperkeratosis and parakeratosis in the perifollicular areas seen on histopathology. The linear and dotted vessels seen on dermoscopy corresponds to the dilatation of dermal capillaries observed on histopathology.

Dermoscopic findings may aid differentiating among the underlying causes of erythroderma, which can be a mammoth task otherwise. Dermoscopy of erythroderma secondary to atopic dermatitis exhibits yellowish scales or crusts along with patchy distribution of dotted vessels on a pinkish background,[2] where as erythroderma secondary fungoides demonstrates sparse whitish scales, numerous dotted vessels along with serpiginous vessels which typically have spermatozoon-like shape.^[2]

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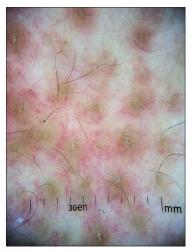


Figure 2: Dermatoscopy (Dermlite II Hybrid M Dermatoscope at ×10 magnification in polarized mode) revealing whitish keratotic follicular plugssurrounded by yellowish-red (blue arrow) background and multiple, peripheral, linearly arranged (red arrow), and dotted (black arrow) vessels

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Conflicts of interest

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