SKIN

SKIMages

Erythrasma Under Wood's Lamp and the "Coral-Red" Glow

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Figure 1. Coral red fluorescence characteristic of erythrasma

We present a case in which a 54-year-old male with Fitzpatrick skin type II presented to clinic with well-circumscribed dark brown patches with surrounding scale in his bi-lateral inguinal folds. He reported that he first noticed the rash about two weeks prior to presentation and applied OTC anti-fungal creams with no improvement. He stated that he has never had a similar rash before, and he noted that the only associated symptom was occasional pruritus. Examination with Wood's lamp revealed a bright "coral-red" fluorescence (Figure 1) and helped confirm the diagnosis of erythrasma.

Erythrasma is a cutaneous bacterial infection most commonly caused by *Corynebacterium minutissimum*.[1] *Corynebacterium minutissimum* is a Gram-positive bacillus that constitutes the normal

microflora of the skin.[2] It has a predilection for moist areas of the body such as the axillae, inframammary folds, interdigit spaces, and the intergluteal cleft.[1] *C. minutissimum* produces a chemical called coproporphyrin type III, which leads to the characteristic "coral-red" glow when examined under Wood's lamp.[2] Importantly, bathing can remove the porphyrin and lead to a false-negative result.[2] Erythrasma classically presents as well-demarcated dark-brown macules and later coalesces into larger patches in intertriginous skin.[3] The rash can be confused with other common pathology including candidiasis, dermatophytosis, pityriasis versicolor, and inverse psoriasis.

Candidiasis is a fungal infection most commonly caused by Candida albicans.[1] The rash is typically erythematous and scaly with evidence of satellite lesions. Dermatophyte infections can also present as erythematous and scaly plaques. Both candidiasis and dermatophyte infections can be identified using potassium hydroxide preparation.[1] Of note, approximately 30% of patients with interdigital erythrasma may have a coexisting dermatophyte or candida infection. Pityriasis versicolor lesions can be hyperpigmented or hypopigmented but usually do not feature scale or well-demarcated borders as seen in erythrasma. Inverse psoriasis presents as an erythematous, non-scaly plaque in intertriginous lesions. Wood's lamp offers a quick and non-invasive method of diagnosing erythrasma and distinguishing it from these other similar conditions.

There are several treatment options for erythrasma including both topical and systemic therapy. Topical therapy consists of clindamycin, fusidic acid, mupirocin, and Whitfield's ointment while systemic therapy includes oral clarithromycin, erythromycin, and tetracycline.[4] There is no consensus on optimal first-line agent, but topical therapy is generally preferred to limit adverse effects.[1] For intertriginous disease, it is important to add a topical agent, often in conjunction with systemic therapy, in order to obtain clearance.[4] While there is limited data on duration of treatment, most studies suggest a 2-week course. A thorough HPI, high index of suspicion and appropriate use/interpretation of the Wood's lamp exam can allow for quicker diagnosis and effective therapy.

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