Widespread hyperpigmented rash present for 1 year

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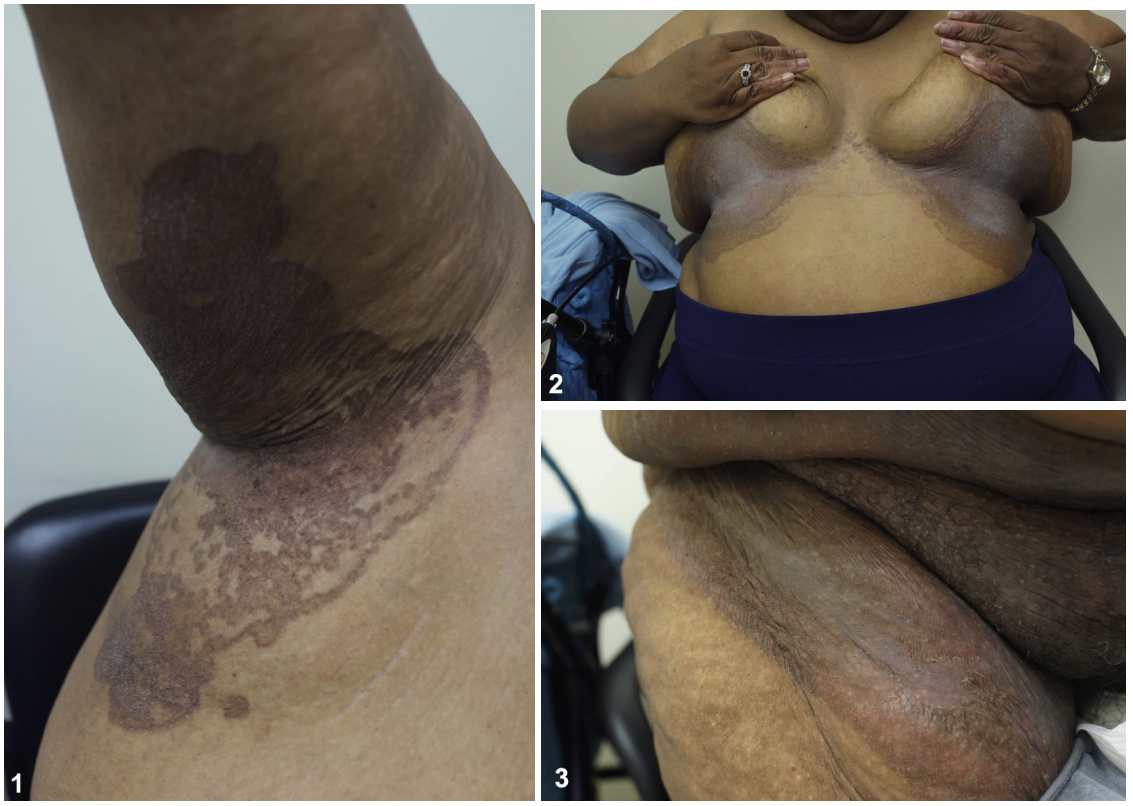

A 59-year-old woman with type II diabetes mellitus and obesity presented to the clinic for evaluation of a hyperpigmented rash located in her axillae, groin, buttock, umbilicus, and inframammary region (Figs 1 to 6) of 1 years' duration. She reported pruritus and occasional fissuring after scratching. She was treated previously with nystatin powder, clotrimazole cream, and oral fluconazole for 4 weeks with minimal improvement.

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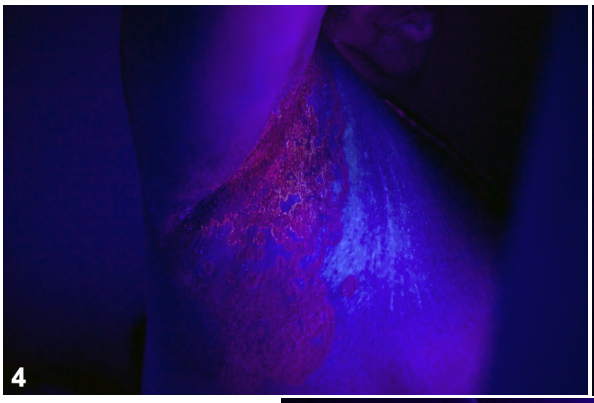

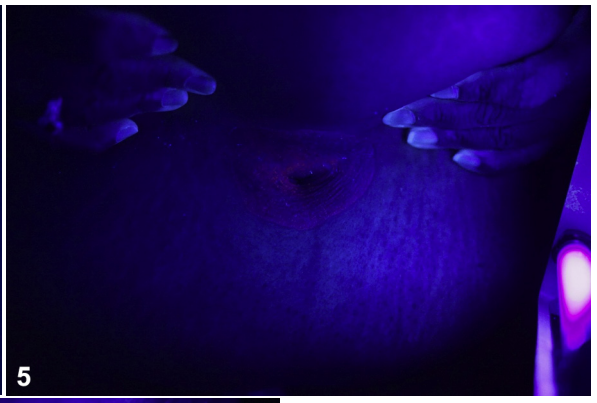

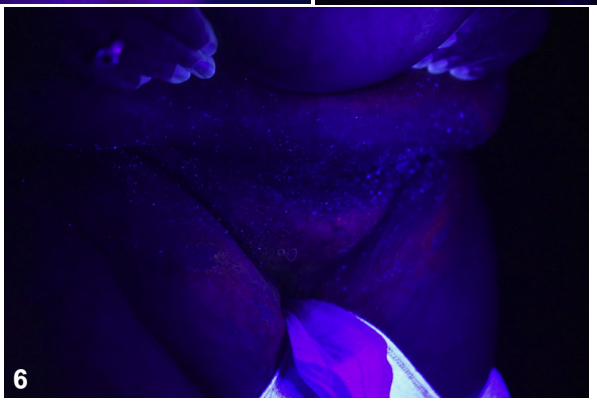

Question 1: What is the diagnosis?

A. Mycosis fungoides

B. Inverse psoriasis

C. Dermatophytosis

D. Erythrasma

E. Candidiasis

Answers:

A. Mycosis fungoides — Incorrect. Mycosis fungoides classically appears as patches. It takes years to develop and most cases occur in whites (70%; Hispanics, 9%).[1]

B. Inverse psoriasis — Incorrect. Inverse psoriasis presents with erythematous, shiny, moist plaques in intertriginous areas but with no scale.[2,3]

C. Dermatophytosis — Incorrect. Dermatophytosis often occurs with onychomycosis; lack of response to antifungals makes this diagnosis less likely.[4]

D. Erythrasma — Correct. Erythrasma presents with erythematous to tan, asymptomatic or pruritic scaly plaques in intertriginous areas and is caused by *Corynebacterium minutissimum*.[5,6] Risk factors include obesity, poor hygiene, warm climate, and diabetes mellitus.[7]

E. Candidiasis — Incorrect. Candidiasis has satellite papules and would have improved with antifungals.

Question 2: What does Wood's lamp detect in this patient?

A. Coproporphyrin III

B. Melanin

C. Rhodopsin

D. Carotenoid

E. Pyocyanin

Answers:

A. Coproporphyrin III — Correct. Diagnosis of erythrasma can be made easily by Wood's lamp examination, which characteristically fluoresces coral red due to coproporphyrin III.[5,8]

B. Melanin — Incorrect. Wood's lamp does not detect melanin, the naturally occurring pigment in skin and hair.

C. Rhodopsin — Incorrect. Wood's lamp does not detect rhodopsin, which is the purple pigment in eyes that helps with sight in dim light.

D. Carotenoid — Incorrect. Wood's lamp does not detect these red, yellow, or orange pigments, such as carotene, which give color to plant parts such as carrots or fall leaves.

E. Pyocyanin — Incorrect. Wood's lamp does not detect this blue-green pigment, which gives pseudomonas its characteristic color.

Question 3: How would you treat this patient?

A. Topical steroids

B. Macrolide antibiotic

C. Immunotherapy

D. Topical antifungals

E. Barrier cream

Answers:

A. Topical steroids — Incorrect. Topical steroids would be used for a diagnosis of inverse psoriasis and are not indicated for erythrasma, as it is a bacterial infection.[2]

B. Macrolide antibiotic — Correct. Erythrasma is treated with topical clindamycin, erythromycin, or antibacterial soaps, such as benzoyl peroxide.[7] For recalcitrant or extensive disease, a 5- to 14-day course of oral erythromycin or clarithromycin is used to eliminate the corynebacterium. For therapeutic failure of intertriginous involvement, topical clindamycin or other antibacterial soaps are added.

C. Immunotherapy — Incorrect. Immunotherapy can be used for cutaneous malignancies, such as mycosis fungoides; however, immunotherapy is not used for the treatment of erythrasma.[1]

D. Topical antifungals — Incorrect. The patient has not responded to topical and oral antifungals, and these are not indicated in the treatment of erythrasma.

E. Barrier cream — Incorrect. Barrier creams are typically used to treat dermatitis and dry skin and work to improve barrier function of the skin and reduce its susceptibility to irritants.[9]

DISCUSSION

This article represents an interesting presentation of extensive erythrasma, which required a biopsy for diagnosis. This case highlights the importance of keeping erythrasma on the differential diagnosis of a rash in the intertriginous areas, especially as it can be easily identified with Wood's Lamp in the office.

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