Minocycline-Induced Hyperpigmentation and Ulerythema Ophryogenes

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Case 1: A 19-year-old man seeks evaluation of leg pain of 1 month’s duration. The increased pigmentation on his legs has been present for about 8 to 9 months.

What does this look like to you?

A. Dermatomyositis.
B. Idiopathic thrombocytopenic purpura (ITP).
C. Minocycline-induced hyperpigmentation.
D. Ochronosis.
E. Superficial thrombophlebitis.

Case 1: Minocycline-induced hyperpigmentation

Dermatomyositis does not cause increased pigmentation. The pigmentation associated with ITP is purpuric, unlike the discoloration seen here. Ochronosis is an autosomal recessive disorder caused by the lack of homogentisic acid oxidase; it is characterized by increased skin pigmentation and dark urine that oxidizes black on exposure to air. Superficial thrombophlebitis is associated with tender linear cords.

There are 3 types of minocycline-induced hyperpigmentation, C. Type 1, the most common, is blue-black discoloration that appears in areas of prior inflammation or scars. The other types result from an accumulation of minocycline over time. Hyperpigmentation develops in up to 4% of patients who receive a cumulative dose of 100 g.1 This patient had been treated for years at a dosage of 100 mg bid.

Type 2 hyperpigmentation is characterized by discoloration on the shins. Sclera, conjunctiva, bone, thyroid, ear cartilage, nail bed, oral mucosa, and permanent teeth may also be involved. The pigmentation slowly fades over months, although discoloration of the teeth may take years to fade. Type 3 hyperpigmentation is photodistributed.
This patient’s leg pain was unrelated to the minocycline-induced hyperpigmentation. The cause of the pain was not found.

Case 2:

The parents of an 11-year-old girl became concerned when they noticed that the child was losing her eyebrows. They also seek medical evaluation of redness on her cheeks that has been long-standing but asymptomatic. The girl is otherwise healthy. What is your clinical impression?

A. Hypothyroidism.
B. Hyperthyroidism.
C. Ulerythema ophryogenes.
D. Keratosis pilaris.
E. Keratosis pilaris atrophicans faciei.

Case 2: Ulerythema ophryogenes

Ulerythema ophryogenes, C, is the term used to describe the loss of the lateral third of the eyebrows that is often associated with keratosis pilaris atrophicans faciei, E. This exaggerated form of keratosis pilaris manifests with involution after the follicular horny plugs heal with pitted scars and atrophy. It can involve the cheeks as well as the eyebrows.

Hypothyroidism has been associated with loss of the lateral eyebrows. Hyperthyroidism and typical keratosis pilaris are not associated with alopecia.

Case 3:

For 1 month, a 25-year-old woman has had an asymptomatic rash on her trunk and extremities. She has psoriasis and psoriatic arthritis, which is currently treated with methotrexate and adalimumab. What is the likely cause of the rash?
Case 3: Pityriasis rosea

A biopsy confirmed the diagnosis of **pityriasis rosea, B.** This exanthem has been associated with human herpesvirus 6 (HHV-6) and HHV-7. Pityriasis rosea most commonly presents as oval-shaped macules on the trunk and proximal extremities; however, there is also a papular variant. All of the choices in the differential are reasonable; thus, performing a biopsy assists in making the diagnosis, particularly given the complicating circumstances in this case.

Case 4:

For several years, a 56-year-old woman has had a persistent, pruritic rash on her legs. She has type 2 diabetes mellitus, which is controlled with oral hypoglycemic agents. Which of the conditions in the differential is the most likely diagnosis?

A. Lichen planus.
B. Psoriasis.
C. Diabetic dermopathy.
D. Nummular eczema.
E. Actinic keratoses.

Case 4: Lichen planus
A biopsy confirmed the diagnosis of lichen planus, A. This common pruritic condition is characterized by flat-topped, polygonal papules, which typically occur on the flexor surface of the wrists, trunk, medial thighs, shins, and glans penis. Nail changes are seen in 5% to 10% of patients with lichen planus. Fifteen percent have oral involvement; most of these patients are women. About one-third of cases last longer than 1 year. In some patients, lichen planus is associated with hepatitis C.

Psoriasis and nummular eczema are scalier than lichen planus. Actinic keratoses have a rough, scaly surface. Diabetic dermopathy features more pigmentation than the lesions seen here.

High-potency topical corticosteroids are the first line of treatment for lichen planus. Oral antimicrobials may be useful, although the mechanism of their effect is unknown. These include amoxicillin, ciprofloxacin, dapsone, metronidazole, minocycline, tetracycline, and trimethoprim/sulfamethoxazole. Both minocycline and tetracycline have been used with nicotinamide.

Oral antifungals that may be useful include griseofulvin, itraconazole, and ketoconazole. The antimalarials chloroquine and hydroxychloroquine have also been used to treat lichen planus. As with the antimicrobials, the mechanisms of antifungals and antimalarials in this setting are unknown.

References:
REFERENCE:

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