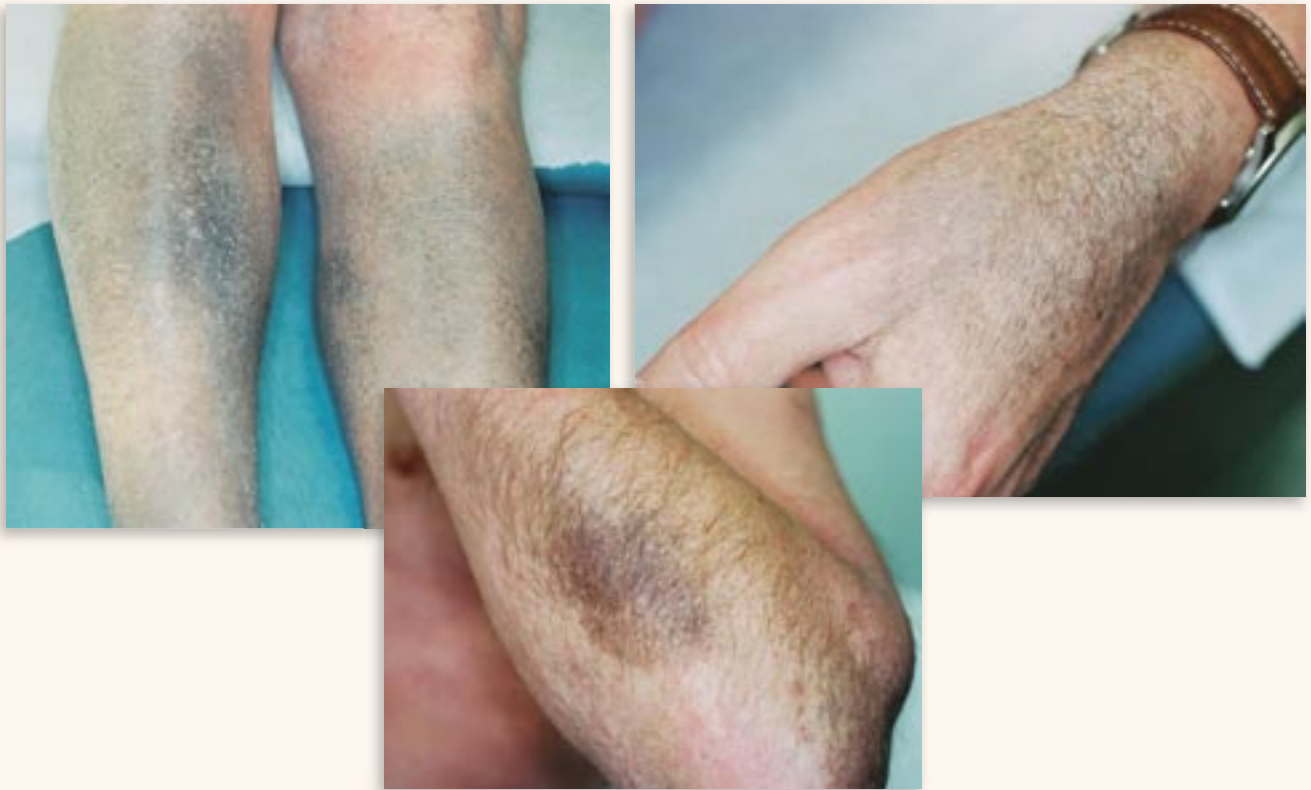




Dermacase

Sunil Kalia Stewart P. Adams, MD, FRCPC



CAN YOU IDENTIFY THIS CONDITION?

A patient presents with blue-gray pigmentation on the front of his shins and the back of his hand. He has brown pigmentation just below his elbow. He has no other clinical abnormalities.

The most likely diagnosis is:

1. Riehl melanosis
2. Erythema dyschromicum perstans
3. Minocycline-induced pigmentation
4. Metastatic melanoma

Answer on page 596

Mr Kalia is a Clinical Clerk in the Faculty of Medicine at the University of Calgary in Alberta. **Dr Adams** is a Clinical Assistant Professor in the Division of Dermatology, Department of Medicine, at the University of Calgary.

3. Minocycline-induced pigmentation

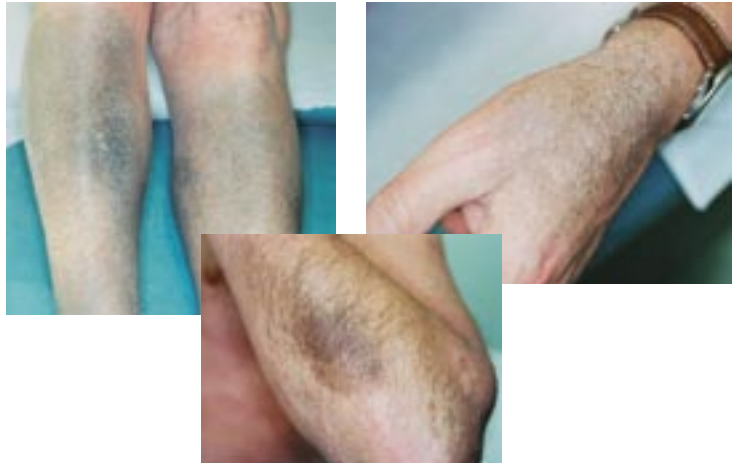
The blue-gray and brown pigmentation seen on this patient's skin was caused by his taking high doses of minocycline over a prolonged period. Minocycline is used extensively as an antibiotic for treating acne and as an anti-inflammatory agent for treating rheumatoid arthritis. Substantial doses of minocycline (100 to 200 mg/d) taken over prolonged periods often cause this type of discoloration.¹

Three types of pigmentation patterns can result from taking minocycline.² The first is blue-gray pigmentation around areas that were previously inflamed, such as areas that have acne scars. The second type is also blue-gray and is seen covering the anterior shins, arms, and ankles. The last type is brown and usually occurs on areas of the skin exposed to the sun. The pigmentation comes from iron within the dermal macrophages. Other areas of the body that can be affected are the nails, bones, thyroid gland, mouth, and eyes.

Hyperpigmentation caused by minocycline will gradually fade when the medication is stopped, but fading could take several months. Reports indicate that treatment with a Q-switched laser to remove the discoloration is rapid and effective.^{3,4}

Riehl melanosis consists of brown-violet pigmentation on sun-exposed areas, such as the face. Other clinical features of this disease are pruritus and erythema. The photoreaction is aggravated by use of certain cosmetics, such as perfume.⁵

Erythema dyschromicum perstans can be idiopathic or acquired and results in a gray-blue hypermelanosis.



The lesions present initially as erythematous macules. The colour transforms slowly into a slate gray. Erythema dyschromicum perstans usually affects patients younger than 40.

The end stage of metastatic melanoma occasionally gives a blue-gray hue to the body. The blue-gray can vary to produce a brown colour. This is a rare terminal complication of the disease, and patients with this complication have a poor prognosis.

References

1. Eisen D, Hakim MD. Minocycline-induced pigmentation. Incidence, prevention and management. *Drug Saf* 1998;18(6):431-40.
2. Odom R, James W, Berger T. *Andrews' diseases of the skin: clinical dermatology*. 9th ed. Philadelphia, Pa: WB Saunders Co; 2000. p. 243-4.
3. Green D, Friedman KJ. Treatment of minocycline-induced cutaneous pigmentation with the Q-switched Alexandrite laser and a review of the literature. *J Am Acad Dermatol* 2001;44(2 Suppl):342-7.
4. Friedman IS, Shelton RM, Phelps RG. Minocycline-induced hyperpigmentation of the tongue: successful treatment with the Q-switched ruby laser. *Dermatol Surg* 2002;28(3):205-9.
5. Freedberg I, Eisen A, Wolff K, Austen K, Goldsmith L, Katz S, et al. *Fitzpatrick's dermatology in general medicine*. Vol 1. 5th ed. New York, NY: McGraw-Hill; 1999. p. 1008,1011.