CASE REPORT

89. When Antibiotics Leave a Mark: Understanding Minocycline-Related Pigmentation

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Background: Minocycline, a broad-spectrum tetracycline antibiotic, is frequently prescribed for chronic dermatologic or infectious conditions[1]. While generally well-tolerated, long-term or high-dose use can lead to a rare side effect: minocycline-induced hyperpigmentation (MIH). MIH is categorized into four types based on clinical presentation and histopathology, with Type I causing blue-black macules affecting sites of inflammation, Type II causing blue-gray pigmentation on areas of normal skin, Type III involving diffuse muddy-brown discoloration in sun-exposed areas, and Type IV affecting scars on the back[1,2]. With the growing use of minocycline for resistant infections, recognition of this side effect is important.

The Case: A 68-year-old male with a medical history of hypertension, congestive heart failure, type II diabetes, dyslipidemia, colon cancer, and prior aortic valve replacement was admitted to the hospital following a syncopal event. He was found to be febrile (104°F), delirious, and diagnosed with sepsis caused by *Acinetobacter baumannii* with no clear infection source. He was prescribed oral minocycline 100 mg twice daily for long-term suppression for approximately 5 years. Approximately 12 months after initiation, the patient developed bilateral hyperpigmentation on the dorsal surfaces of his feet, which gradually spread up to his bilateral lower extremities, forearms, cheeks, and sclera. The pigmentation persists and continues to expand at a slow rate. The clinical features suggest Type III MIH.

Conclusion: The case illustrates a severe and unusually widespread manifestation of Type III MIH resulting from long-term minocycline use. While some pigmentation cases resolve after drug discontinuation, Type III often persists indefinitely[1,2] and with increasing total cumulative dose[3]. This disfiguring adverse effect highlights the importance of ongoing skin assessments in patients on long-term, high-dose minocycline regimens. Early recognition and timely intervention may help prevent irreversible cosmetic changes and improve long-term patient outcomes.

Figure 1. Dark Pigmentation on the Patient's Sclera, Cheek, Upper Extremity, and Lower Extremities.

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