Hydroxychloroquine-induced Hyperpigmentation of the Skin

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Hydroxychloroquine (HCQ)-associated hyperpigmentation is uncommon, with onset ranging from 3 months to 22 years following the initiation of therapy1.

A 32-year-old woman presented with a 1.5-year history of symmetric polyarthritis, positive rheumatoid factor, and anticyclic citrullinated peptide antibody, without erosive joint changes. She had presented shortly after a Cesarean birth complicated by wound dehiscence and infection. She was diagnosed with rheumatoid arthritis, and treatment was initiated with HCQ 200 mg twice daily, a dose based on her weight and height. Subsequent to the healing of her Cesarean birth incision and after a period of breast-feeding, she started receiving methotrexate 15 mg weekly while continuing HCQ therapy. She presented 3 months later with multiple skin lesions predominantly on her neck, bilateral forearms, and dorsal feet. The skin lesions were macular or patchy, some well and others poorly demarcated, with a hyperpigmentation of gray to black discoloration, generally annular, but some with irregular morphology. They were flat without induration or scaling (Figure 1). A diagnosis of HCQ-associated hyperpigmentation was made, and HCQ was discontinued. The patient did not develop any new lesions and the existing lesions have slowly improved over the subsequent 4 months. A comprehensive eye examination did not show any evidence of retinopathy.

Mucocutaneous hyperpigmentation because of antimalarial therapy has been reported since World War II2; however, HCQ-associated hyperpigmentation seems to be less common than with other antimalarials such as chloroquine3,4. The onset of HCQ-associated hyperpigmentation

![Figure 1. Hydroxychloroquine-associated hyperpigmentation with gray to black discoloration.](image_url)
ranges from 3 months to 22 years following the initiation of therapy, with a median of 6.1 years. In our case, hyperpigmentation of the skin appeared about 1 year after initiating therapy. Treatment consisted of discontinuing HCQ, which led to the gradual decrease in hyperpigmentation of lesions within several months. Although there is evidence that both melanin and iron deposits can be present within the dermis in hyperpigmented lesions induced by HCQ, the exact mechanism of hyperpigmentation is unknown. Further, the relationship between HCQ-associated hyperpigmentation and eye toxicity is not clear; however, careful ophthalmological followup is certainly recommended.

**REFERENCES**


