

Hydroxychloroquine-induced Pruritus

Sir,

Hydroxychloroquine is a derivative of chloroquine and is frequently used in dermatological practice in the management of a number of conditions including photosensitivity disorders. There are a number of recorded side-effects of this therapy. Pruritus is a well recognized side-effect of chloroquine treatment of malaria in Africans and has also, rarely, been reported in Caucasians. To our knowledge, pruritus associated with hydroxychloroquine treatment has been reported only once, in the French language literature. We report here a further case of hydroxychloroquine induced pruritus in a 22-year-old Caucasian woman with systemic lupus erythematosus (SLE). We believe that this is the first report of such an association in the English language literature.

CASE REPORT

A 22-year-old Caucasian woman with a previous medical history of SLE was referred to the dermatology department by her general practitioner for treatment of plantar warts. At review, the patient additionally described a 3-year history of severe generalized pruritus. Self-medication with up to 20 4-mg chlorpheniramine tablets daily was of only minimal benefit. Other regular medications included hydroxychloroquine 200 mg daily, azathioprine 50 mg daily, aspirin 75 mg daily, prednisolone 10 mg daily and an oral contraceptive (Femulen). Other than the extensive plantar warts, clinical examination was unremarkable, with no evidence of cutaneous or systemic manifestations of lupus erythematosus or lymphadenopathy. Initial investigations, including a full blood count, erythrocyte sedimentation rate, C-reactive protein, thyroid, renal and liver function tests were all within normal limits. Immunological investigations had consistently demonstrated positive anti-nuclear factor, with a speckled pattern at 1:40 and reduced C4, compatible with the diagnosis of SLE.

In the absence of an obvious underlying medical cause, pruritus secondary to the medication was considered. A literature search revealed a report of pruritus as a side-effect of hydroxychloroquine treatment. On retrospective questioning, the onset and duration of symptoms coincided with the period of treatment with hydroxychloroquine. As the patient's SLE was quiescent, treatment with hydroxychloroquine was discontinued with rapid and complete resolution of her symptoms of pruritus. Three months after withdrawal of the hydroxychloroquine, the patient experienced a flare of SLE coincident with a reduction in the dose of oral prednisolone. She was then recommenced on hydroxychloroquine 200 mg daily, and her symptoms of itch returned rapidly within 30 days. As the activity of the patient's SLE settled, subsequent withdrawal of hydroxychloroquine once again resulted in complete resolution of pruritus within 4 weeks.

DISCUSSION

Hydroxychloroquine is the beta-hydroxylated derivative of chloroquine, and is frequently used in dermatological practice, particularly in the management of photosensitivity disorders, such as the cutaneous manifestations of lupus erythematosus.

Well-recognized side-effects of this drug include irreversible retinopathy, headache, gastrointestinal upset, hair loss, pigmentary changes and skin eruptions, including flare of pre-existing psoriasis. Pruritus is a recognized side-effect of treatment with chloroquine for malaria, particularly in Africans (1, 2), but also occasionally in Caucasians (3, 4). In contrast, pruritus has been reported only once previously in association with hydroxychloroquine (5). In this case a 46-year-old woman of Tunisian origin, also with SLE, was treated with 400 mg hydroxychloroquine a day, and developed symptoms of severe pruritus after 2 months. In common with our patient, no other cause for the pruritus was identified. The symptoms resolved 1 month following the withdrawal of the hydroxychloroquine, and recurred within 2 weeks of its subsequent reintroduction. A further withdrawal led to resolution of symptoms after 15 days. In view of the improvement of symptoms on withdrawal and recurrence following re-challenge, we conclude that the severe symptoms of pruritus experienced by our patient were attributable to treatment with hydroxychloroquine. This appears to be a rare side-effect, but one that can be severe in those affected. Common features with the pruritus associated with chloroquine include the poor response to systemic antihistamine preparations (6, 7) and absence of scratch marks (1).

REFERENCES

1. Ekpechi OL, Okoro AN. Pattern of pruritus due to chloroquine. *Arch Dermatol* 1964; 89: 631–632.
2. Olantunde A. The practical and therapeutic implications of chloroquine induced itching in tropical Africa. *Afr Med Med Sci* 1977; 6: 27–31.
3. Spencer HC, Poulter NR, Lury JD, Poulter CJ. Chloroquine associated pruritus in a European. *BMJ* 1982; 285: 1703.
4. George AO. Chloroquine pruritus: a possible fixed cutaneous reaction. *Int J Dermatol* 1996; 35: 323–324.
5. Fain O, Frilay Y, Sitbon M, Feton N, Mathieu E, Thomas M. Pruritus a l'hydroxychloroquine. *Rev Med Int* 1994; 15: 433.
6. Osifo NG. The antipruritic effects of chlorpheniramine, cyproheptadine and sulphapyridine monitored with limb activity meters on chloroquine induced pruritus among patients with malaria. *Afr J Med Med Sci* 1995; 24: 67–73.
7. Abila B, Ezeamuzie IC, Igbigbi PS, Ambakederemo AW, Asomugha L. Effects of two antihistamines on chloroquine and histamine-induced weal and flare in healthy African volunteers. *Afr J Med Med Sci* 1994; 23: 139–142.

Accepted January 13, 1999.

S.A. Holme² and S.C. Holmes¹

¹University Department of Dermatology, Western Infirmary, Dumbarton Road, Glasgow G11 6NT and ²Department of Dermatology, University Hospital of Wales, Heath Park, Cardiff CF4 4XW, UK.