Fixed Drug Eruption to Hydroxychloroquine

Dear Editor,

A 25-year-old male patient presented to our emergency ward with itchy bluish-red skin lesions over the left middle finger for 1 day and left calf for 7 days. There was a history of intake of 800 mg stat dose of hydroxychloroquine (HCQ) 1 day before the development of the lesion over his calf which subsided on its own. One week later, he took HCQ 400 mg after which the lesion over the calf reappeared, accompanied by the appearance of a newer lesion over the left middle finger associated with burning and minimal itching. There was no history of erosions over oral/genital mucosae/similar complaints in the past. Past history was significant with history of atopic dermatitis since 2016, controlled on topical medications. On cutaneous examination, an erythematous plaque with a violaceous hue of approximately 2 × 2 cm size was seen over the dorsum of left middle finger [Figure 1], and a 4 × 4 cm nummular plaque with a central violaceous area and peripheral erythematous halo over the left calf [Figure 2]. Mucosae, scalp, palms, and soles were normal. The Naranjo causality score was 7 suggesting HCQ as a "probable" cause of the reaction. The lesional patch test with 5% HCQ in petrolatum was negative at 48 and 72 h which can be explained by the low sensitivity of this test with a positivity rate of around 43%. Based on the history, temporal correlation, classical clinical picture, high Naranjo score, and positive oral provocation (reappearance of lesion on re-exposure to the drug) we made the diagnosis of fixed drug eruption (FDE) secondary to HCQ. The patient was advised topical steroid and oral antihistamines as a treatment modality. On follow-up examination, the lesions regressed with residual hyperpigmentation.

Fixed drug eruption is a benign adverse cutaneous drug reaction presenting with well defined, oedematous, erythematous or violaceous nummular plaques, and can be associated with burning, itching, and a prodrome of discomfort/stinging at the site.[1] These lesions recur at the same site after re-exposure to the inducing agent, though new sites may also be involved in few cases. FDE accounts for approximately 10% of cutaneous adverse drug reactions and has a predilection for sites like genitalia, hands, and lips. It occurs within a few hours of drug re-exposure and resolves within 1–3 weeks leaving behind an area of hyperpigmentation. The proposed pathophysiology is a delayed-type of hypersensitivity with intraepidermal CD8 T cell activation at specific sites.[2] Most commonly implicated drugs are cotrimoxazole, tetracyclines, aspirin, barbiturates, atenolol, sulfonamides, and paracetamol.[3] There are few reports of FDE secondary to the ingestion of tonic water consisting of quinine.[3-5] Asero R[3] reported a case of FDE secondary to ingestion of tonic water containing quinine in a woman involving the upper lip, left arm, neck, back, and right breast within 1 hour of intake of tonic. Open oral challenge test with quinine solution was positive suggesting quinine hypersensitivity. Similarly, Genest G *et al*.[4] reported FDE due to tonic water over the right index finger, penis

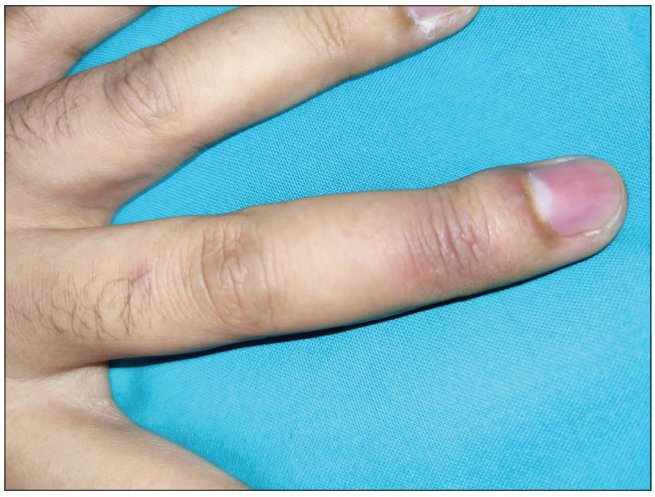

Figure 1: Erythematous plaque with violaceous hue of approximately 2 × 2 cm size over left middle finger dorsum

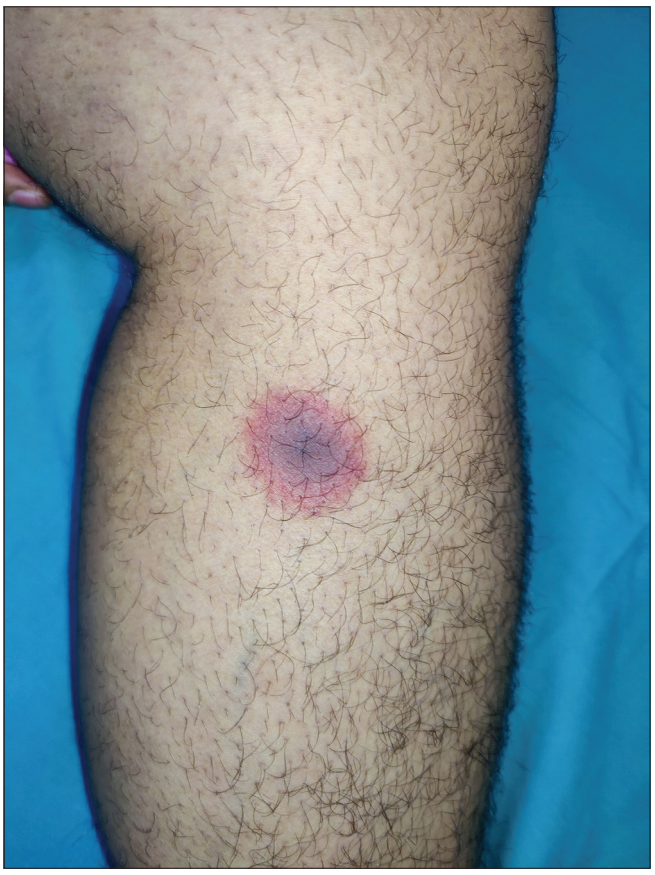

Figure 2: A 4 × 4 cm nummular plaque with a central violaceous area and peripheral erythematous halo over left calf

and palate, and Lonsdale-Eccles E *et al*.[5] reported it over the lip and penis. Temporal correlation and classical clinical findings pointed towards the diagnosis but skin biopsy, patch and photopatch tests, and oral provocation tests have been used for confirmation of diagnosis.[4] To the best of our knowledge, there are no previous reports of FDE secondary to HCQ. The current report highlights the potential risk of FDE secondary to HCQ. This becomes even more relevant in the current scenario when people especially health care workers are taking HCQ as COVID-19 prophylaxis.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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