

CONTACT POINT

Occupational contact dermatitis caused by hydroxychloroquine sulfate

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Occupational exposure to active pharmaceutical ingredients can have adverse health effects.¹ Occupational contact dermatitis caused by 4-aminoquinolines (amodiaquine, chloroquine, and hydroxychloroquine) is rare; 1 case caused by chloroquine sulfate² and another caused by hydroxychloroquine³ have been described. We report a case of occupational contact dermatitis caused by hydroxychloroquine sulfate in a worker in the pharmaceutical industry.

CASE REPORT

A 42-year-old man, with no history of atopy or lifestyle risk factors, had worked for 18 months in a pharmaceutical company; the first 10 months in the drug packaging section, and the last 8 months in the manufacture of hydroxychloroquine sulfate. A month before consultation, a pruritic rash on the back of his hands and wrists had appeared, and topical corticosteroids and oral antihistamines were prescribed. After 2 weeks, when he was free of symptoms, he returned to work. However, 4 days later, a pruritic rash on the hands and wrists appeared again.

Prick tests performed with a non-irritant concentration of 20 mg/L hydroxychloroquine sulfate yielded a negative result. Patch testing was performed with the Grupo Español de Investigación de Dermatitis de Contacto (the Spanish Contact Dermatitis Research Group) (GEIDC) baseline series supplemented with hydroxychloroquine sulfate 0.5%, 1% and 2% in saline solution.³ Results on day (D) 2 and D4 showed positive reactions to hydroxychloroquine sulfate (2%, ++; 1%, ++; and 0.5%, +). Prick tests and patch tests gave negative results in all 6 healthy controls tested. The patient left his job, and his allergic contact dermatitis cleared.

DISCUSSION

Hydroxychloroquine sulfate is a 4-aminoquinoline, like amodiaquine and chloroquine. It is used mainly for the prophylaxis and treatment of malaria, and for the treatment of rheumatoid arthritis and systemic lupus erythematosus. In 1984, Kellett and Beck² reported a case of a maintenance worker in the pharmaceutical industry who was exposed to chloroquine sulfate powder and presented with rashes on the forearms, face, and eyelids. The patch test was positive only for chloroquine sulfate. Meier et al³ reported a case of bronchial asthma and generalized allergic dermatitis caused by hydroxychloroquine in a worker in the pharmaceutical industry. Our case was diagnosed as having type IV hypersensitivity to hydroxychloroquine sulfate after 8 months of exposure. As hydroxychloroquine sulfate is a sensitizer, effective preventive measures should be taken to prevent cases such as that reported here.

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