Drug rash due to levamisole

Sir,

Levamisole, a commonly used anti-helminthic, has been found to have microfilaricidal, immunostimulant and immunomodulator activities. Its side effects include nausea and vomiting, metallic taste, diarrhea, malaise, insomnia, sensory stimulation, hyperallergic state, dizziness, headache, blurred vision, fatigue and fever. Prolonged use of this drug may cause agranulocytosis, [1,2] cutaneous necrosis, vasculitis, [3,4] ataxia, [5] purpura involving the ear, [6] thrombocytopenia [7] and psychosis. [8] Hypersensitivity due to levamisole is rare. [9] Recently, we reported a case of fever due to levamisole.[10] Here we report a patient of vitiligo who developed repeated episodes of fever along with itching and redness of the palms, soles and legs on intake of levamisole. On rechallenge with levamisole he developed the same symptoms within 5 hours.

A 33-year-old man presented with progressive depigmentation of the skin over the abdomen, back, lower limbs and arm since the past 6 months. The patches appeared initially on the abdomen followed by the back and were progressive. He was diagnosed as a case of vitiligo and started on oral betamethasone (5 mg) and levamisole (150 mg) tablets, once daily on two consecutive days every week. After three months, topical fluocinolone acetonide (0.01%) cream was added to the existing therapy. After 8 months, on one occasion, 12 hours following intake of the oral drugs, he developed fever (102°F) with chills and rigor, followed by itching and redness of the skin over the palms, soles and both legs. Sore throat or burning micturition was not associated. He stopped the drugs and sought advice of a local physician. With treatment he became asymptomatic within 8 days. He restarted betamethasone and levamisole after 1 month and developed similar symptoms within 4-5 hours of intake of the drugs. This episode also needed medical help for 5-6 days. He stopped taking the oral medications and continued with the application of the topical steroid.

To confirm the diagnosis of fever and drug rash due to levamisole, rechallenge was done with oral levamisole (150 mg) under medical supervision with the patient's consent. After 5 hours, he developed fever (102°F) followed by itching, redness and swelling of the lips, palms and soles. The patient was advised oral betamethasone 5 mg 12-hourly and his lesions resolved completely within 24 hours.

Repeated episodes of fever along with redness and itching of palms and soles within 4-12 hours of intake of levamisole points towards the association of the reaction with this drug. Reappearance of similar symptoms during rechallenge with the drug further confirms this association. A similar case was reported by Secher et al. [9] Their patient, who had rheumatoid arthritis and was being treated with levamisole, developed fever with severely itchy skin lesions.^[9]

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REFERENCES

- 1. Kaplan B, Cardarell C, Pinnell SR. Levamisole and agranulocytosis. Cutis 1979;24:429-30.
- 2. Mielants H, Veys EM. B27 and agranulocytosis in rheumatoid arthiritis patients treated with levamisole. Acta Rheumatol 1979;3:104-7.
- 3. Powell J, Grech H, Holder J. A boy with cutaneous necrosis occurring during treatment with levamisole. Clin Exp Dermatol 2002;27:32-3.
- 4. Menni S, Pistritto G, Gianotti R, Ghio L, Edefonti A. Ear lobe bilateral necrosis by levamisole induced occlusive vasculitis in a pediatric patient. Pediatr Dermatol 1997;14:477-9.
- 5. Dubey AK, Gupta RK, Sharma RK. Levamisole induced ataxia. Ind Pediatr 2001;38:417-9.
- 6. Rongioletti F, Ghio L, Ginevri F, Bleidl D, Rinaldi S, Edefonti A, et al. Purpura of the ears: a distinctive vasculopathy with circulating autoantibodies complicating long-term treatment

- with levamisole in children. Br J Dermatol 1999;140:948-51. 7. Winguist EW, Lassam NJ. Reversible thrombocytopenia with
- levamisole. Med J Pediatr Oncol 1995;24:262-4. 8. Jeffries JJ, Cammisuli S. Psychosis secondary to long-term
 - levamisole therapy. Ann Pharmacother 1998;32:134-5.
- Secher L, Permin H, Skov PS, Ullman S, Halberg P. Levamisole
- induced hypersensitivity. Acta Derm Venereol 1978;58:372-4.

10. Gupta R, Gupta S. Fever due to levamisole. Indian J Dermatol

Venereol Leprol 2003;69:237-8.