

Contact allergy to green coffee bean dust in a coffee processing plant worker

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Case Report

A 51-year-old electrician at a coffee manufacturing plant had had discoid dermatitis, mainly affecting the hands, arms and lower legs, for the past 5–6 years. His general practitioner had treated this with Dermovate[®] cream (). He had worked as an electrician in the maintenance department at the coffee processing plant for 18 years. The process involves green beans being shipped into the plant, then baked and processed into coffee.

He was patch tested to a standard series, new green bean dust and old

green bean dust (as is), pulverized coffee grounds, coffee powder itself, roasted coffee bean grounds and extracted coffee grounds. He had + reactions to new green bean dust and old green bean dust. There were no other positive reactions. 20 controls were negative to the dust.

He avoided all exposure to green bean dust, though this was difficult in his job, and his skin condition completely cleared.

Discussion

Green coffee bean dust is an important cause of sensitization in coffee manufacturing plants (1). In such plants, raw coffee beans are delivered to the factory in sacks which are opened manually. They are cleaned mechanically and a fine dust can be released throughout the entire building. Coffee is then roasted in machines, ground and packed (2). Various allergies in the workers have been reported, most commonly Type I hypersensitivity (3, 4). Contact dermatitis from green coffee bean dust has been reported less frequently, though 1 patient had both Type I and Type IV hypersensitivity (3). There has also been 1 report of a patient with contact dermatitis from serving coffee (5). Another allergen that coffee workers can be exposed to is cas-

tor bean, which has been a potent sensitizer as a contaminant (4).

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