

Occupational airborne contact dermatitis to simvastatin, carvedilol, and zolpidem

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Simvastatin is a 3-hydroxy-2 methylglutaryl coenzyme A (HMG-CoA) reductase inhibitor, commonly used as a lipid-lowering agent. Carvedilol is a nonselective beta-adrenergic blocking agent with alpha 1-adrenergic blocking activity and no intrinsic sympathomimetic activity. It is usually prescribed as an antihypertensive agent. Zolpidem is an imidazopyridine sedative-hypnotic structurally unrelated to the barbiturates and benzodiazepines, used for treatment of insomnia. We present a case of an airborne contact dermatitis to these three drugs in the setting of a pharmaceutical industry.

Case Report

A 29-year-old atopic male was referred with a 6-month history of dermatitis involving his eyelids, cheeks, lips, nose, and the nasolabial folds. There was occasional oedema of his eyelids. During the previous 2 years, he had worked as a machine

operator in a pharmaceutical factory. His personal protective equipment included latex gloves and a poorly fitting paper face mask. The rash was partially and temporarily relieved following application of emollients and topical steroids. It cleared during long periods away from work.

Patch tests were performed to his own samples of work chemicals appropriately diluted in pet. (1) was performed. He was also tested to the European baseline series of contact allergens and to a cosmetic series (Chemotechnique Diagnostics, Malmö, Sweden) applied in Finn Chambers® (Epitest, Tuusula, Finland) on Scanpor® (Norgesplaster A/S, Vennesla, Norway). The tests were applied to the upper part of the back and left for 2 days. Tests were read on D2 and D4. The reactions were scored according to International Contact Dermatitis Research Group criteria. Readings at D2 and D4 were simvastatin 1% pet. (+/+), simvastatin 0.1% pet. (+/+), carvedilol 10% pet. (+/+), and zolpidem 10% pet. (+/++). The same patch tests concentrations performed on 10 controls were negative. Three months avoidance of the offending allergens resulted in total clearing of the dermatitis.

Discussion

Simvastatin is a competitive inhibitor of HMG-CoA reductase, commonly used in the treatment of hypercholesterolaemia. Carvedilol is a beta-receptor blocker. It is a common cardiovascular medication. Zolpidem is a short-acting nonbenzodiazepine hypnotic that potentiates gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter, by binding to GABA_A receptors at the same location as benzodiazepines. Airborne occupational allergic contact dermatitis to simvastatin has previously been described in three patients (2, 3). To our knowledge, this is the first report of occupational airborne contact dermatitis to carvedilol and zolpidem.

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