

Short Communication

Contact dermatitis caused by phenoxybenzamine hydrochloride

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Case Report

A 43-year-old intensive care unit nurse presented with a work-related eczema, initially on both forearms and then also on her face and neck, which had been present for 6 months. She did not have any other skin diseases or atopy. A similar rash affected 3 of her colleagues, though they did not seek medical advice. Suspected causes included skin cleansers, as well as penicillins or phenoxybenzamine hydrochloride. These drugs were prepared on a shelf that pulled out from the drug cabinet, and which was then wiped. Following this, the nurses would rest their forearms on this shelf to fill in the drug charts.

She was patch tested to standard and facial series, together with dilutions of penicillin G and phenoxybenzamine hydrochloride. Patch tests were read at D2 and D4 and showed the following positive reactions: phenoxybenzamine hydrochloride 1% aq. ++, ++; 0.5% aq. +, ++; 0.1% aq. +, +. Patch tests were performed on 7 controls with phenoxybenzamine hydrochloride 1% aq., resulting in an irritant reaction in 2 patients and active sensitization in 1. 25 controls were patch tested with phenoxybenzamine hydrochloride 0.1% aq., with no positive reactions.

Discussion

Phenoxybenzamine hydrochloride is a powerful α -adrenoceptor blocking agent, with a prolonged duration of action, used in the treatment of various forms of hypertension. It is known to cause contact sensitization in guinea pigs. A laboratory technician developed contact dermatitis from phenoxybenzamine whilst preparing pharmacological class compounds (1). 2 other cases oc-

curred in human volunteers during pharmaceutical experiments (2).

The British National Formulary warns of the contact sensitizing potential of phenoxybenzamine hydrochloride and advises against skin contamination (3). To administer the correct dose, the drug must be diluted in normal saline for infusion. The data sheet recommends using the drug immediately after dilution and discarding the solution after 4 h, because of its instability after dilution. Although the work area was cleaned following preparation of the drug, residual traces of phenoxybenzamine hydrochloride were sufficient to sensitize our patient. To our knowledge, no cases of phenoxybenzamine hypersensitivity occurring in the hospital setting have previously been described.

The literature recommends performing a patch test with phenoxybenzamine hydrochloride 1% aq. or 0.1% pet. (4). 2 out of 7 controls showed an irritant reaction to 1% aq. and 1 was sensitized, whereas this was not observed at 0.1% aq. We would therefore suggest patch testing with freshly prepared phenoxybenzamine hydrochloride 0.1% aq.

References

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