

Pigmented purpuric dermatosis due to pseudoephedrine

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Fixed drug eruptions have been reported with pseudoephedrine (1), as well as recurrent toxic shock syndrome (2), recurrent pseudoscarlatina (3), and systemic contact dermatitis (4).

Pigmented purpuric dermatoses (PPD) are a class of relatively asymptomatic to mildly pruritic pigmented lesions of unknown pathogenesis (5), which in recent years have become grouped as one disease (6), sharing the histological features of extravasated erythrocytes within the papillary dermis, haemosiderin deposition, and a lymphohistiocytic infiltrate.

Case Report

A 71-year-old woman took Narine® (loratadine 5 mg and pseudoephedrine 60 mg,) orally for a catarrhal infection, and on the 5th day of treatment developed intense pruritus and a widespread eruption. This consisted of well-circumscribed erythematopurpuric plaques of varying diameter, some evolving into vesicles, with residual melanotic pigmentation. Lesions resolved when the drug was discontinued and after a week of treatment with systemic corticosteroids and antihistamines. An identical sequence of events occurred 15 days later, following another capsule of Narine.

Informed patient consent was obtained for all tests. A single-blind oral challenge test, placebo-con-

trolled, with loratadine (10 mg) was negative. The patient was then challenged orally with 15 mg of pseudoephedrine. Within 4 h, the same erythematous eruption appeared at exactly the same sites as her two previous attacks. Patch tests were performed on residual skin with pseudoephedrine (10% and 20% in DMSO). Within 12 h, the patch tests had to be removed because the same widespread erythematous eruption appeared at exactly the same sites.

Biopsy of the positive patch test and cutaneous lesions after the oral challenge test were similar. In both, we found extravasated erythrocytes within the papillary dermis, and perivascular inflammation with a predominantly lymphocytic infiltrate. We observed no abnormalities in cell counts, circulating platelets and coagulation function being normal.

Discussion

Vascular damage and erythrocyte extravasation in pigmented purpuric dermatosis may be secondary to localized cell-mediated immunological events (7). All haematological studies, including clotting time, bleeding time, and platelet count, are normal (8). Among the rare drugs responsible for this disorder are thiamine propyldisulphide, chlorthalidone (9), glipizide (10), and acetaminophen (11). No cases due to pseudoephedrine have previously been reported. Several drugs may produce both thrombocytopenic and non-thrombocytopenic purpura, including acetylsalicylic acid, carbamazepine, and thiouracils (12), but not pseudoephedrine. Fixed drug eruption, particularly of the non-pigmenting variety, may be the most common cutaneous reaction to pseudoephedrine hydrochloride (13–15).

In our patient, diagnosis was confirmed by reproduction of old lesions with single-blind oral challenge test, placebo-controlled, with informed patient consent. Biopsy, as always, was very useful, enabling differential diagnosis from entities (16) such as spongiotic dermatitis, pityriasis rosea, lichenoid dermatitis, stasis dermatitis, erythema multiforme, necrotizing vasculitis (leucocytoclastic

vasculitis), and even Kaposi's sarcoma (17).

Generally, patch tests are safe in cutaneous adverse drug reactions, but in our case they provoked a systemic reaction, reactivating all previous lesions. We need more cases, however, before the balance between the benefit and risk of patch testing in this particular eruption can be established.

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