

Tolerance to a group C corticosteroid systemically in a patient with delayed-type hypersensitivity to group A systemic corticosteroids

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Topical corticosteroids are well-known contact sensitizers (1), whereas delayed-type allergic reactions to systemic corticosteroids are rare (2).

Case Report

A 36-year-old woman was treated with i.v. methylprednisolone (Urbason®, Aventis, Bad Soden, Germany) for acute myelitis for 5 days. 3 days after the end of treatment she developed a widespread macular exanthem with severe itch. After 2 days with no improvement, her general practitioner administered i.v. prednisolone (Solu-Decortin H®, Merck, Darmstadt, Germany), which caused

exacerbation of both exanthem and itch. Subsequently, all therapy was stopped and the symptoms resolved within a week. She had a previous history of hay fever and oral allergy syndrome from fruits and nuts. Contact allergies to Myroxylon Pereirae resin and neomycin had previously been demonstrated.

Patch tests were performed with the European standard series and the corticosteroids prescribed to the patient, plus betamethasone as a potential alternative. In these tests, both prednisolone (1% in pet.) as well as methylprednisolone (1% in pet.) showed positive reactions (+) at day (D)2 and 3, along with Myroxylon Pereirae resin. Betamethasone-17-valerate (0.12% in petrolatum) was negative.

Finally, i.v. provocation was performed with 4 mg betamethasone dihydrogenphosphate disodium (Celestan solubile®, Essex, Munich, Germany), the patient not experiencing any side-effects over the next week.

Comment

Delayed-type hypersensitivity to topical corticosteroids has been reported extensively (1, 2). Most patients react to more than 1 corticosteroid due in part to cross-sensitivity. 4 groups of corticosteroids can be defined (3, 4) within which cross-sensitivity is much more likely than between.

The patient reported here, while reacting to 2 group A systemic corticosteroids (prednisolone and methylprednisolone), tolerated a group C corticosteroid (betamethasone) systemically. Rytter *et al.* similarly de-

scribed 10 patients, 2 of whom developed a macular exanthem after systemic prednisolone, but tolerated dexamethasone, another group C corticosteroid (5). Based on these cases, we suggest that the cross-sensitivity patterns described for topical corticosteroids hold also true for their systemic use.

References

1. Dooms-Goossens A, Andersen K E, Burrows D et al. A survey of the results of patch tests with tixocortol pivalate. *Contact Dermatitis* 1989; 20: 158.
2. Whitmore S E. Delayed systemic allergic reactions to corticosteroids. *Contact Dermatitis* 1995; 32: 193–198.
3. Coopman S, Degreef H, Dooms-Goossens A. Identification of cross-reaction patterns in allergic contact dermatitis from topical corticosteroids. *Br J Dermatol* 1989; 121: 27–34.
4. Lepoittevin J-P, Drieghe J, Dooms-Goossens A. Studies in patients with corticosteroid contact allergy: understanding cross-reactivity among different steroids. *Arch Dermatol* 1995; 131: 31–37.
5. Rytter M, Walther T, Suss E, Hausteiner U F. Allergic reaction of the immediate and delayed type following prednisolone medication. *Dermatol Monatsschr* 1989; 175: 44–48.

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