

Allergic contact dermatitis produced by canrenone

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Canrenone is a product derived from spironolactone, a synthetic steroid with antiandrogenic effect that inhibits 5- α dehydrotestosterone receptors in pilosebaceous unit.

It was proposed some years ago in the treatment (oral or topical) of some cutaneous diseases related to a hyperandrogenic status like acne, hirsutism, or androgenic alopecia (1), but its use has declined progressively because of lack of efficacy. In reference with its topical use, it has not been related with any adverse effect; in fact, there are no published cases of allergic contact dermatitis produced by canrenone. Indeed, very few cases of allergic contact dermatitis produced by topical spironolactone have been reported in the literature, last of them published more than 10 years ago (2).

Clinical Case

A 38-year-old woman, without any allergologic or dermatologic antece-

dent of importance, presented with an eczematous reaction in face and scalp. She had been using a topical formulation made of minoxidil 2%, canrenone 2%, biotin 1%, and panthenol 1% in alcoholic sol. since 5 days as a treatment for her androgenic alopecia. On previous days, she had also used a new hair polisher and had applied a topical permethrin 1.5% solution on her scalp because her daughter was louse-infested. After all those treatments were stopped, cutaneous lesions spontaneously healed in few days and epicutaneous tests were considered.

One month later, we performed patch tests with standard Grupo Español de Investigación en Dermatitis de Contacto (GEIDC) allergens plus her own products (hair polisher, permethrin 1.5% solution, and formulation for alopecia as is), minoxidil 2% and 5% – in both pet. and hydroalcoholic solution –, and biotin 1% pet. under conventional conditions. Positive results for nickel and epoxy resin (non-relevant for the case) and for her own product for alopecia were obtained at 2 and 4 D, being negative for all the other substances.

3 weeks later, we performed a second patch test with some dilutions of canrenone at 0.1%, 0.5%, 1%, and 2% pet. They showed positive results for all concentrations at 2 and 4 D (Fig. 1). 10 controls were negative for canrenone.

As far as we know, this is the first case described for an allergic contact dermatitis produced by canrenone, a molecule with antiandrogenic properties only anecdotally used nowadays in the topical treatment of androgenic alopecia. Although 1%

pet. is the most suitable concentration recommended for spironolactone patch test (2), for canrenone we have found positive reactions even with lower concentrations, as 0.1% pet. New cases may probably be difficult to find, knowing the current scarce use of this substance.

References

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Fig. 1. Positive results with canrenone 0.1%, 0.5%, 1%, and 2% pet. (4 D).