

Allergic contact dermatitis to acexamic acid

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Acexamic acid (*N*-acetyl-amino-6-hexanoic acid) is a drug used as a cicatrization helper. The association from acexamic acid with zinc, zinc acexamate, has been used in treatment of gastric and duodenal ulcer and in prevention of gastric ulcer induced by nonsteroidal anti-inflammatory drugs.

Case Report

A 66-year-old woman, with stasis dermatitis, hypertension, and hypercholesterolemia, but no previous story of atopy, has been applying,

for several months, on a leg ulcer an ointment – Plastenan N[®] which main constituents are acexamic acid and neomycin, until complete heal.

Meanwhile, she has developed erythematous, itching papules, and oedema in both legs that spread to the trunk and upper limbs. Her condition only improved with systemic corticotherapy.

Some months later, after a trauma on the same leg, another small leg ulcer appeared, and she applied again the referred ointment. Symptoms, similar to previous ones, appeared.

Patch tests with standard series adopted by Grupo Português de Estudo das Dermite de Contacto and Plastenan N, and their constituents were performed. The results are summarized on Table 1.

10 healthy subjects path tested with the above-mentioned substances showed no reactions.

Conclusion

Plastenan N ointment has as main constituents neomycin and acexamic acid. As a result, we were expecting a contact allergy to neomycin, because of its high frequency. However, in this case, the patient developed a disseminated allergic contact dermatitis to acexamic acid. In patients with stasis dermatitis and/or leg ulcer or other chronic eczemas, it is not rare to see dissemination of eczema (haematogenous route) to other leg at 1st, then to the entire integument, as it happened in this patient.

The frequency of neomycin sensitivity varies from country to country, it has been increased over the years, probably because of the common use of topical drugs containing this antibiotic (1).

I should be aware that the reaction of the epidermal tests was violent and long lasting.

Table 1. Summary of relevant results of patch tests

Allergen	D2	D4
Neomycin sulfate 20% pet.	–	–
Sorbic acid 2% pet.	–	–
Acexamic acid 5% pet.	++	+++
Acexamic acid 10% pet.	++	+++
Xalifin-15 12% pet.	–	–
Xalifin-15 20% pet.	–	–
Perhydrosqualene 15% pet.	–	–
Perhydrosqualene 18.5% pet.	–	–
Plastenan N ointment as is	+++	+++

Although zinc acexamate allergy has already been described (2), we did not find any report of allergic contact dermatitis to acexamic acid.

Acexamic acid (*N*-cetyl-amino-6-hexanoic acid) is a drug used as a cicatrization helper. Some studies show that the acexamic acid prevents the formation the connective inflamed tissue and enables its healing (3–5).

Recently, the association from acexamic acid with zinc, zinc acexamate, has been used in treatment of gastric and duodenal ulcer and in prevention of gastric ulcer induced by nonsteroidal anti-inflammatory drugs (6, 7). It is important to be cautious when consuming the above drug as it can lead to further allergic reactions.

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