

Codeine-induced generalized dermatitis and tolerance to other opioids

R. N. Orjales*, F. Carballada, C. Carballas, M. Boquete

Key words: bisolvon; codeine dermatitis; fentanyl opioids.

This is a case report of a 37-year-old woman, without personal history of note, who two months prior to consultation, started treatment for a common cold with Bisolvon compositum (bromhexine hydrochloride 2.5 mg, diphenhydramine hydrochloride 7.5 mg, ephedrine hydrochloride 7.5 mg and codeine hydrochloride 10 mg) three times daily. After 2 days she had pruritus of neck and legs, and the following day she awoke with oedematous eyelids and lips and generalized, itchy cutaneous rash. She discontinued treatment with Bisolvon and after two days on oral corticosteroids and antihistamines, the condition resolved in 48–72 with mild sloughing.

She believes she had previously taken the same medicine and tolerated it well. She did not report having taken the aforementioned drugs since this episode.

Considering that the main component in Bisolvon compositum in terms of its pharmacological utility is codeine, it was decided to commence the study with a codeine challenge test. After signing an informed consent, the patient was given an oral dose of 15 mg of codeine phos-

phate, and 90 min later there was onset of pruritus. Sixty minutes later, and considering that the reaction was not progressing, the patient was treated with an oral antihistamine. The next day she had a generalized rash that resolved in about three days with antihistamines and corticosteroids. Codeine-induced generalized dermatitis was diagnosed, and alternatives were looked for.

After carrying out a literature review on this subject, similar cases were found that had been studied with patch tests for codeine, morphine, pentazocine and tramadol (1, 2); codeine, morphine, meperidine and naloxone (3); codeine, morphine, dihydrocodeine, thebaine, nalorphine, naloxone and hydromorphone (4) and codeine, morphine, pentazocine, tramadol and buprenorphine (5). Global results (six patients) showed 100% cross reactivity in the patch test between codeine and morphine and 0% with the other drugs tested. None of the battery of tests included fentanyl or derivatives and there were no reports of challenge tests with possible alternatives. de Groot and Conemans (4) confirmed the diagnosis with a controlled codeine challenge test, with positive results.

Considering these findings it was decided to avoid a morphine challenge test.

We believe that the main problem for this patient related to which opioid could be safely used in the event of future surgery under general anaesthesia. Opioids from the fentanyl group are currently used in this type of anaesthesia, and so it was decided to perform a subcutaneous challenge test with this drug (1 ml in a solution of 0.1 mg/2 ml), with pulse oximetry monitoring (because of the possibility of respiratory depression). There was good tolerance, except for a feeling of euphoria and well-being that resolved spontaneously. Further-

more, an oral challenge test was performed with tramadol 50 mg, which was also tolerated.

The patient was permitted the use of fentanyl and derivatives, as well as tramadol, and it was recommended that she should avoid all other opioids. Good tolerance to fentanyl and tramadol was demonstrated and confirmed by oral challenge in a patient with codeine-induced generalized dermatitis, confirmed on challenge.

*Allergy Department, Xeral-Calde Hospital, Lugo, Spain

Tel.: +34 9822 96000

Fax: +34 9822 96281

E-mail: ramon.nuñez.orjales@sergas.es, aorjales@saludalia.com

Accepted for publication 23 April 2009
Allergy 2009

© 2009 John Wiley & Sons A/S

DOI: 10.1111/j.1398-9995.2009.02113.x

References

- Rodríguez Á, Barranco R, Latasa M, Ortiz de Urbina JJ, Estrada JL. Generalized dermatitis due to codeine. Cross sensitization among opium alkaloids. *Contact Dermatitis* 2005;**53**:240.
- Estrada JL, Alvarez Puebla MJ, Ortiz de Urbina JJ, Matilla B, Rodríguez Prieto MA, Gozalo F. Generalized eczema due to codeine. *Contact Dermatitis* 2001;**44**:185.
- Rodríguez F, Fernández L, García-Abujeta JL, Maquieira E, Llaca HF, Jerez J. Generalized dermatitis due to codeine. *Contact Dermatitis* 1995;**32**:120.
- de Groot AC, Conemans J. Allergic urticarial rash from oral codeine. *Contact Dermatitis* 1986;**14**:209–214.
- Gastaminza G, Audicana M, Echenagusia MA, Uriel O, García-Gallardo MV, Velasco M et al. Erythrodermia caused by allergy to codeine. *Contact Dermatitis* 2005;**52**:227–228.