Eur J Pediatr (2006) 165: 418–419
DOI 10.1007/s00431-005-0076-x

SHORT REPORT

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Hypersensitivity to racecadotril: a case report

Received: 16 November 2005 / Accepted: 13 December 2005 / Published online: 28 January 2006

We report here the first case of non-allergic hypersensitivity reaction (drug intolerance) to racecadotril.

Oral rehydration therapy is generally accepted as the most effective treatment for the rehydration of children with acute diarrhea and is recommended by the World Health Organisation for the prevention and management of dehydration [1].

There is evidence from several randomised controlled trials that antidiarrheal and antimotility agents are not clinically beneficial in the management of acute childhood gastroenteritis, and their side effect profile is unacceptable [3]. Racecadotril (acetorphan) (Fig. 1) is a specific inhibitor of enkephalinase (neprilysin EC 3.4.24.11), a cell membrane peptidase enzyme located in various tissues, notably the epithelium of the small intestine.

This enzyme contributes both to the digestion of exogenous peptides and to the breakdown of endogenous peptides such as enkephalins, neurokinin and substance P [1]. Racecadotril potentiates the physiological anti-secretory properties of the enkephalins. Thiorphan, the active metabolite of racecadotril, activates the anti-secretory mechanism via the D receptor and by the reduction of intracellular cAMP [4]. Many studies have reported evidence of the efficacy and tolerability of racecadotril in acute diarrhea in children [2, 5, 6], with it being significantly more effective than placebo in randomised double-blind studies in adults or children with diarrhoea. Most adverse events were classified as mild to moderate. The most common adverse events were vomiting, constipation, bloody stool and itching [1].

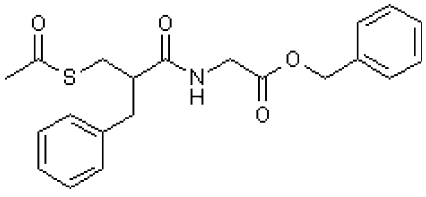

Fig. 1 Molecular structure of racecadotril

No cases of non-allergic hypersensitivity reactions (drug intolerance) or allergic reactions (drug allergy) to racecadotril have been described in literature.

We report here the case of a 3-year-old child (weight: 20 kg) with generalised oedema, itching and aphonia after a 2-day treatment with racecadotril (Tiorfan: 30 mg; Ferrer International, Barcelona). He was administered a daily dose of 30 mg of racecadotril for 2 days (the dose recommended in children is 1.5 mg/kg body weight).

The drug was immediately discontinued and the patient treated with intravenous methylprednisolone (Urbason: 20 mg), intramuscular hydroxyzine (Atarax: 50 mg) and adrenalin (0.2 mg).

The patient underwent a complete allergological evaluation: a skin prick test and patch test with racecadotril were performed. The skin prick test was carried out on the volar surface of the forearm using the tablet powder dissolved in saline (concentration: 90 mg/ml). The patch test was performed using the drug dissolved in petrolatum (concentration: 10%). Evaluation of the skin prick test was assessed after 20 min and 48 h, and both evaluations were negative. The patch test was evaluated after 72 h and was also negative. The clinical findings and results of the allergological evaluation were concrete evidence that patient presented a non-allergic hypersensitivity reaction (or drug intolerance). To the best of our knowledge, this is the first report in the literature of a hypersensitivity reaction to racecadotril.

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