

desensitization protocol with increasing intervals of 1, 2 and 4 weeks between the sessions. The persistence of negative results of intradermal testing was confirmed before each desensitization procedure. Loss of skin sensitivity appeared to be a good predictor of tolerance of the drug. Both patients continued receiving cyanocobalamin injections monthly with good tolerance.

Drug desensitization is time dependant and re-sensitization recurs after a while. We have little information about the length of time the drug tolerance persists. It is thought to be in the range of weeks. According to our experience, with the above patients, it persists for at least 4 weeks. We did not asses a longer time interval and therefore would advise four weekly treatment with the therapeutic dose.

Our patients showed cross sensitivity between cyanocobalamin and hydroxycobalamin therefore we had no substitute drug available. Cross sensitivity has previously been described although it is not always found (2, 3). In a patient with hydroxycobalamin allergy and a negative result to cutaneous testing with cyanocobalamin, this latter preparation may be tolerated.

We have not been able to measure specific IgE in patients' serum, though the mechanism is likely to be IgE dependant. We suspect this to be true as both sensitizations occurred after a period of tolerance with increasing severity of the reaction after each injection. We were able to confirm positive skin test results in our patients as compared with negative test results in control subjects.

The preparation of cyanocobalamin we used did not contain benzyl alcohol preservative which has been involved in patient reacting to vitamin B12 injection (4). The allergen involved in vitamin B12 reactions is likely to be a hapten.

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References

1. Bilwani F, Adil SN, Sheikh U, Khurshid M. Anaphylactic reaction after intramuscular injection of cyanocobalamin (vitamin B12): a case report. *J Pak Med Assoc* 2005;**55**:217–219.
2. James J, Warin RP. Sensitivity to cyanocobalamin and hydroxycobalamin. *Br Med J* 1971;**2**:262.
3. Heyworth-Smith D, Hogan PG. Allergy to hydroxycobalamin, with tolerance of cyanocobalamin. *Med J Aust* 2002;**177**:162.
4. Turvey SE, Cronin B, Arnold AD, Twarog FJ, Dioun AF. Adverse reactions to vitamin B12 injections due to benzyl alcohol sensitivity: successful treatment with intranasal cyanocobalamin. *Allergy* 2004;**59**:1023–1024.

Esomeprazole-induced DRESS syndrome. Studies of cross-reactivity among proton-pump inhibitor drugs

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Key words: DRESS, drug reaction, esomeprazole, patch tests, proton-pump inhibitor drugs, toxiderma.

Cutaneous reactions to proton-pump inhibitors (PPI) are frequent and usually mild in intensity. They include maculopapular eruptions, pruritus and urticaria. Only a few cases of severe skin reactions have been reported until now including erythroderma and Lyell's syndrome (1, 2). We report here a case of drug rash with eosinophilia and systemic symptoms (DRESS) following treatment with esomeprazole which, to our knowledge, has not been reported before. Drug rash with eosinophilia and systemic

Skin tests may induce a flare of DRESS.

symptoms is a serious hypersensitivity syndrome presenting with severe cutaneous maculopapular eruptions, exfoliative dermatitis, facial edema, lymphadenopathy, fever, haematological abnormalities with eosinophilia, atypical lymphocytes and multivisceral involvement (3, 4). The multi-organ involvement differentiates this entity from other common drug eruptions. Anticonvulsants and antivirals are the drugs the most frequently implicated. Drug rash with eosinophilia and systemic symptoms has been associated with a higher morbidity and mortality compared with other adverse drug reactions.

A 41-year-old woman, after a surgical intervention for a temporal glioblastoma received a multidrug therapy which included valproate sodium, clobazam, esomeprazole, zopiclone, paracetamol, trimethoprim sulfamethoxazole. Twenty days after starting treatment she experienced an erythematous and itching skin reaction, with maculo-papulous diffuse lesions, followed by desquamation. In the suspicion of toxiderma because of valproate this drug was stopped and topical corticoids were administered with only mild improvement. The other drugs were continued. Two weeks later an erythroderma developed with mucous involvement, bilateral conjunctivitis, cheilitis, fever (40°C) and desquamation. A systemic treatment by prednisolone 120 mg/day was immediately started and the other drugs were continued. One month later, still under treatment by prednisolone 20 mg/day, a third systemic severe reaction occurred. The clinical examination revealed numerous eczematous extended lesions, facial edema, fever and dyspnoea. Blood tests showed hypereosinophilia > 2000/ml and increased liver enzymes (GGT). A DRESS syndrome was suspected and all drugs were stopped except topical and systemic corticosteroids which were increased to 60 mg/day. A massive desquamation followed and the patient improved slowly until complete remission 4 month later. Skin patch tests were performed with the different drugs (valproate sodium, clobazam, esomeprazole, zopiclone, paracetamol, trimethoprim-sulfamethoxazole) prepared by the hospital pharmacy and provided as 1–10% solutions. Esomeprazole gave a positive reaction at 48 and 72 h readings. All other

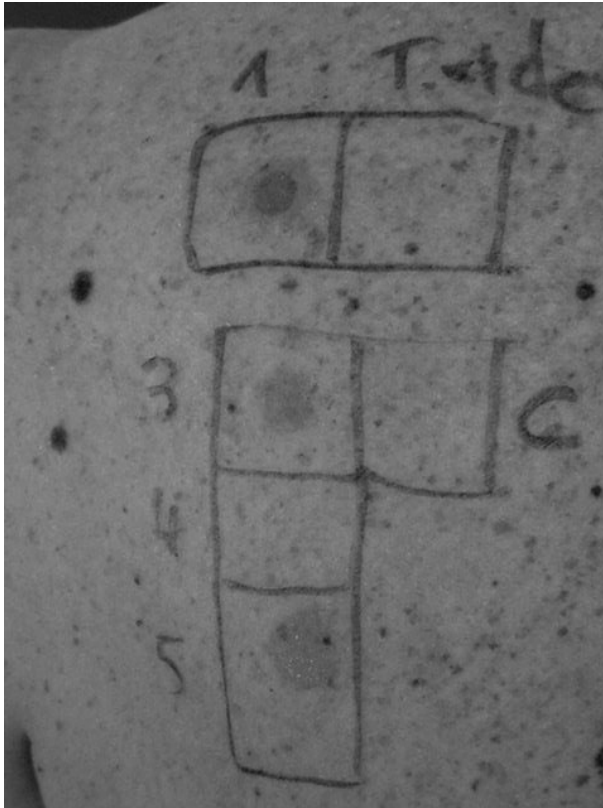


Figure 1. Epidermal tests performed with proton-pump inhibitors. 1, esomeprazole; 3, omeprazole; 4, rabeprazole; 5, pantoprazole; T and C, negative controls.

drugs gave negative results. No side effects were observed after this first patch test series. In order to evaluate cross-reactivity with other PPI, the patient received, one month later, a second series of epidermal tests to esomeprazole, omeprazole, rabeprazole and lansoprazole. Patch tests were positive with esomeprazole, omeprazole and pantoprazole. No reaction was seen with rabeprazole (Fig. 1).

Histological analysis of the esomeprazole positive test showed the typical delayed-type hypersensitivity reaction. However, 60 h after skin patch testing the patient experienced a mild erythroderma with facial oedema and desquamation. Topical steroids and emollients twice daily led to complete remission of symptoms in 4 day. No blood test abnormalities were observed. The diagnosis of type IV hypersensitivity was made and an allergy card to all PPIs was given.

In conclusion, we report here a case of DRESS to esomeprazole with cross-reactivity to most of the members of PPIs. This observation further demonstrates that skin tests may induce a flare

of DRESS, suggesting that caution should be taken in the allergological testing of severe adverse drug reactions.

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References

- Cockayne SE, Glet RJ, Gawkrödger DJ, McDonagh AJ. Severe erythrodermic reactions to the proton pump inhibitors omeprazole and lansoprazole. *Br J Dermatol* 1999;**141**:173–175.

- Revuz J. Fatal toxic epidermal necrolysis due to lansoprazole. *Clin Exp Dermatol* 2006;**31**:148.
- Allam JP, Paus T, Reichel C, Bieber T, Novak N. DRESS syndrome associated with carbamazepine and phenytoin. *Eur J Dermatol* 2004;**14**:339–342.
- Boccaro O, Valeyrie-Allanore L, Crickx B, Descamps V. Association of hypogammaglobulinemia with DRESS (drug rash with eosinophilia and systemic symptoms). *Eur J Dermatol* 2006;**16**:666–668.

Localized eosinophilic ileitis with mastocytosis successfully treated with oral budesonide

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Key words: eosinophilic ileitis; oral budesonide; systemic mastocytosis.

Chronic diarrhoea can represent a challenge for physicians as the possible causes are numerous and sometimes difficult to identify, especially in the case of rare disorders.

A difficult to diagnose eosinophilic ileitis causing chronic diarrhoea.

Among these, intestinal eosinophilic disorders have been increasingly described, as well as mastocytic diseases in the context of systemic mastocytosis (1, 2). We describe herein one case of localized eosinophilic ileitis with mastocytosis, effectively treated with oral budesonide.

The patient is a 50-year-old man, referred to our department for chronic diarrhoea, without abdominal pain or weight loss, lasting about 5 years with relapses and remissions. In the past, the patient managed his problem with over the counter (OTC) anti-diarrhoeic drugs. Abdominal ecography, X-ray and stool examinations, performed on various occasions, had been always negative as well as blood chemistry, haemocytometry and urinalysis. The patient was a smoker, and suffered from seasonal allergic