

reported normal responsiveness of monocytes with heterozygous mutations of TLR4 to endotoxin suggesting that other TLR4 ligands such as heat shock proteins, or defensins may display impaired binding to TLR4. Although the molecular mechanism remains undefined, our observation suggests that the TLR4 polymorphism may confer susceptibility to pneumonia in children.

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Anaphylaxis to boldo infusion, a herbal remedy

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Key words: anaphylaxis; boldo; SDS-PAGE; immunoblot.

Boldo (*Peumus boldus*) is a *Monimiaceae* family tree, native of the Andean regions used in natural medicine as a traditional herbal remedy because of its choleric, cholagogue, diuretic, antipyretic, anti-inflammatory, anthelmintic and hypnotic properties.

We report a case of an anaphylactic reaction (1) after the intake of a boldo infusion. A 30-year-old man with a personal history of allergic rhinoconjunctivitis because of hypersensitivity to grass pollen was attended for an immediate episode of an acute and generalized urticaria, facial angioedema, dysphagia, dysphonia and dyspnea after the intake of a boldo infu-

sion. He required an emergency treatment with subcutaneous adrenaline, parenteral antihistamines and corticosteroids.

Skin prick tests to common aeroallergens were positive to *Phleum* (8 mm wheal diameter) and *Cynodon* (7 mm wheal diameter) with a positive control wheal for histamine of 6 mm. Skin prick test with boldo infusion was negative. Oral administration started with one little spoon; the dose was doubled and at the end the intake to approximately 250 ml. The patient presented a good tolerance initially but 30 min after 250 ml of a boldo infusion, he showed an immediate response with pharyngeal pruritus, hives on neck and thorax and dysphonia, been treated with subcutaneous adrenaline.

We obtained a boldo extract after dialyzing against twice-distilled water, a concentration of 4 g of boldo in phosphate-buffered saline (PBS) 1 : 25 (w/v) for 24 h. It was then sterile-filtered and concentrated by centrifugation. The protein content measured by the Lowry–Biuret method was 15.6 mg/ml. SDS-PAGE as described by Laemmli was used to determine the antigenic profile, showing several proteins with a high molecular weight (Fig. 1). The gel was electrophoretically transferred to a nitrocellulose membrane (BIO-RAD®, Hercules, CA)

A traditional herbal remedy because of its choleric, cholagogue properties.

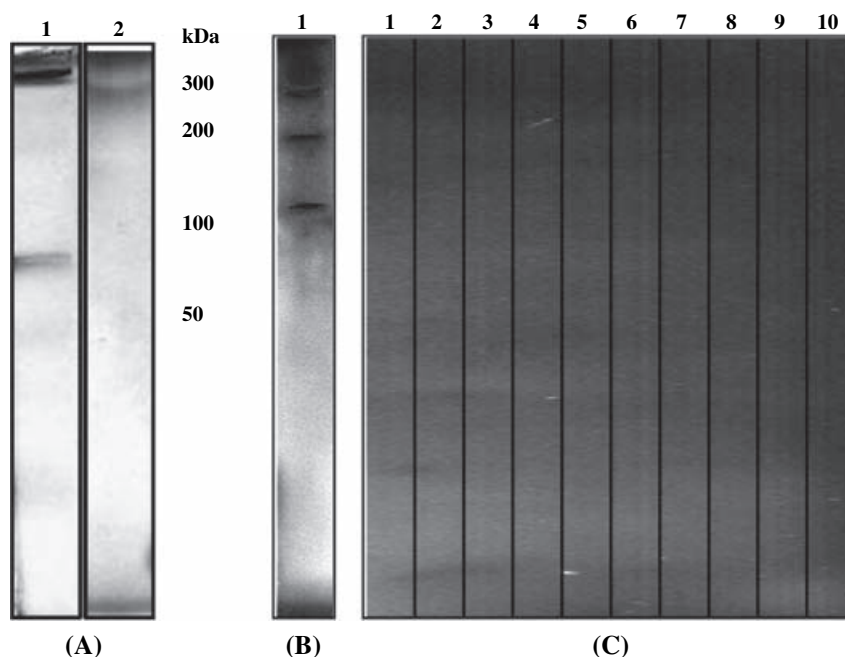


Figure 1. A, SDS-PAGE, silver stain, lane 1 molecular weights, lane 2 boldo extract; B, specific-IgE immunoblot, lane 1 boldo extract; C, negative controls.

and an indirect enzyme immunoassay was performed by incubating for 1 h and after washing with our patient sera, IgG against human IgE and human IgG peroxidase, respectively, obtaining defined bands of 115, 150 and 199 kDa (Fig. 1). The immunoblot with 10 random-selected control patients serum was negative.

In conclusion, the positive oral challenge and the finding of bands in the immunoblotting suggest a type I IgE-mediated immunologic mechanism as being responsible for the patient's anaphylactic symptoms. It has been described that IgE symptoms with other infusions like coffee (2), cacao (3), tea (4) and chamomile tea (5) causes urticaria, occupational asthma and anaphylaxis respectively, but we have not found any case described in the literature with boldo.

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A case of urticaria due to sulpiride

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Key words: drug allergy; skin prick test; sulpiride.

We report the case of a male patient with a generalized urticaria because of

hypersensitivity to sulpiride. Sulpiride is a selective dopaminergic antagonist for D2 receptors that belongs to the group of benzamids or ortopramids, with neuroleptic, antidepressive, antiemetic, and antivertigo effects. It has been rarely associated with cutaneous adverse effects (1).

A 31-year-old man without any personal or familiar history of atopy, was referred to our department for allergologic evaluation because he had presented a cutaneous eruption 20 min after taking 100 mg of sulpiride (Dogmatil®, Sanofi-Synthelabo, Barcelona, Spain) p.o. on day 3 of treatment for dizziness. The reaction began with palmoplantar itching, progressing to generalized urticaria. The patient was treated with parenteral administration of corticosteroids and antihistamines in the Emergency room. Sulpiride was discontinued and tiethylperazine (Torecan®, Novartis Pharmaceutica, Barcelona, Spain) was used instead. Twenty-four hours later he returned to the Emergency room because dizziness and itching had not disappeared. When treatment with β -histine (Serc®, Solvay Pharma, Barcelona, Spain) was started itching increased and urticaria reappeared. The patient was admitted to hospital in the ORL department and after treatment with diazepam (Valium®, Roche Pharma, Madrid, Spain), dimenhydrinate (Biodramina®, Uriach-Biohorm, Barcelona, Spain), and dexchlorfeniramine (Polaramine®, Schering Plough, Madrid, Spain), his symptoms were completely resolved in 4–5 days.

After obtaining informed consent for the drug study, a skin prick test with sulpiride (5 mg/ml) and β -histine (8 mg/ml) was performed. It was positive for sulpiride (4×4 mm) and negative with β -histine with a wheal 5×5 mm for histamine. Skin prick tests with sulpiride were negative in 20 control subjects.

Single-blind oral tolerance exposure tests with tiethylperazine and β -histine were performed. In both cases, we reached the highest therapeutic dose with good tolerance.

Suspected IgE-mediated reaction to sulpiride was confirmed by positive skin prick test.

We decided to attempt an oral challenge with sulpiride in order to confirm the diagnosis. Within 24 min of receiving the first dose of the drug (5 mg equivalent to one of 20 therapeutic dose) he began to experience intensive palmoplantar itching. The oral challenge was stopped and the patient was immediately treated with endovenous dexchlorfeniramine with complete resolution of itching.

We describe a case of drug-induced eruption because of sulpiride by a type I hypersensitivity mechanism. Suspecting an IgE-mediated mechanism, carried us to perform a skin prick test with sulpiride to the patient and to 20 control subjects with the above-mentioned results, which confirmed our initial hypothesis. The fact that the skin prick test result fits in with the oral challenge result, makes the prick test with sulpiride a useful diagnostic tool (2).

Clinical findings and positive skin prick test, as well as positive challenge with sulpiride imply that the patient developed type I hypersensitivity. To our knowledge, this is the first case of immediate hypersensitivity to sulpiride.

The cutaneous exacerbation that followed the β -histine administration was probably because of the fact that this drug is an histamine analog (3, 4). Tiethylperazine is a fenothiazine with antidopaminergic and antihistaminic H1 with antiemetic and antivertigo effects. This drug did not resolve the dizziness but did not aggravate the skin eruption.

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