

Urticaria due to pentoxifylline

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Key words: pentoxifylline; urticaria; xanthines.

Pentoxifylline is a purine derivative. The purines include adenine, guanine, and alkaloids-like caffeine and theophylline. Uric acid is the metabolic end-product of purine metabolism.

We report the first case of urticaria due to pentoxifylline.

Pentoxifylline is used as a vasodilator to relieve symptoms in some cases of intermittent claudication. No immediate hypersensitivity reactions have been described with this product to date.

We report the case of a 60-year-old man who had been treated for 2 days with Hemovas® (Gupo Ferrer, Division Robert, Barcelona, Spain) 400 mg and consulted for the appearance of red macules that developed into highly pruriginous papules that spread until becoming generalized and led the patient to seek emergency care.

One month later, administration of the medication was renewed. Immediately after taking the first tablet of pentoxifylline 400 mg, the patient presented generalized wheals that remitted within hours of taking antihistamines.

The patient gave written consent to undergo hypersensitivity studies. Skin prick and intradermal tests were performed with pentoxifylline, euphylline, theophylline, allopurinol, azathioprine, and 6-mercaptopurine. Results were positive for intradermal pentoxifylline, 0.2 mg/ml, in the immediate reading. In 10 controls, the readings were uniformly negative. In response to oral challenge with theophylline 200 mg, the patient reached a cumulative dose of 350 mg with good tolerance.

When given therapeutic doses of pentoxifylline 400 mg, the patient presented within 1 h of the last dose (cumulative

dose of 540 mg) generalized, highly pruriginous erythematous papules that remitted with outpatient oral treatment. He was diagnosed of immediate hypersensitivity to pentoxifylline.

In the literature we found reports of the pentoxifylline use as a modulator of immune activity through the production of cytokines with anti-inflammatory effects. Among the xanthine derivatives, there are studies of theophylline, which also has immunomodulator activity (1–3).

We found no published reports of immediate hypersensitivity reactions to pentoxifylline, and few reports of reactions to methylxanthines, including caffeine and cola products (4, 5).

The responsible mechanism appears to be immunoglobulin E (IgE)-mediated hypersensitivity in view of the results of allergy tests. In addition, as has been reported by other authors, the patient showed tolerance to oral theophylline exposure, thus excluding pharmacologic cross-reactions because of molecular similarity to pentoxifylline (Fig. 1).

Consequently, we report what we believe is the first case in the literature of acute urticaria triggered by pentoxifylline and confirmed by skin tests and an oral challenge.

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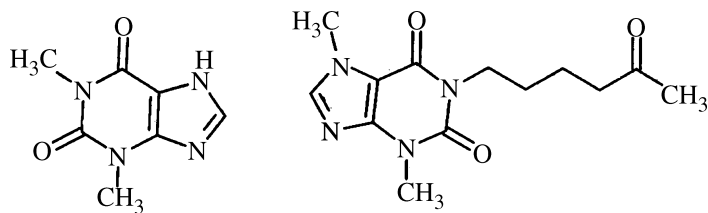


Figure 1. Molecular structure of theophylline and pentoxifylline respectively.

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Anaphylaxis to macrogol 4000 after a parenteral corticoid injection

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Key words: anaphylaxis; betamethasone; hypersensitivity; intradermal tests; macrogols; polyethylenes.

Polyethylene glycols (PEGs, or macrogols in the European pharmaceutical industry) are used in numerous food, cosmetic and pharmaceutical preparations because of their solvent power

We report the first case of a grade III allergic hypersensitivity reaction because of macrogols.