IgE-mediated allergy to pristinamycin: the value of skin tests and basophil activation tests

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Key words: allergy; basophil activation test; CD203c; pristinamycin; skin tests.

Three cases of immediate allergy to pristinamycin with positive skin tests and basophil activation tests are reported.

Allergy to pristinamycin (PMC), an antibiotic related to the macrolide family, is rare and the published cases exclusively concern delayed (T cell-mediated) allergic reactions where the skin tests [patch and intradermal tests (IDT)] are of good diagnostic value (1). We report three cases of IgE-mediated anaphylaxis to PMC where the diagnosis, highly suspected on the clinical symptoms, was confirmed by the positivity of both skin and immunobiological tests.

A 60-year-old woman developed an anaphylactic reaction (hypotension, malaise, urticaria and angioedema) 15 min after first taking two PMC tablets for prevention of infectious endocarditis during dental treatment. The symptoms improved in a few hours following an adrenaline injection.

A 50-year-old patient developed an anaphylactic reaction (malaise and hypotension associated with angioedema) 30 min after first taking two tablets of PMC for prevention of infectious endocarditis during dental treatment. The symptoms rapidly resolved after the injection of corticosteroids.

A 45-year-old woman developed an anaphylactic reaction (malaise without hypotension associated with urticaria, angioedema and nausea) 15 min after first taking one tablet of PMC for cutaneous infection. The symptoms rapidly resolved after the injection of antihistaminics.

Skin tests and immunological tests were performed 1–3 months after the reaction according to standard protocols (2, 3). Sterile solutions of PMC and related macrolides were prepared by the hospital pharmacy by dissolving the drugs in isotonic saline at a concentration of 50 mg/ml. Two series of tests were performed. The first one tested PMC alone and the relevant controls. Prick tests (50 mg/ml) and IDT (10^{-3} dilution of the prick solution, i.e. 50 μg/ml) to PMC were positive in the three patients but negative in two healthy nonPMC allergic individuals. Prick tests and IDT to the solvent were negative in the three patients, excluding a nonspecific positivity of skin tests to PMC. The second series of tests (prick and IDT) concerned five antibiotics of the macrolide family (spiramycin, roxithromycin, clarithromycin, telithromycin and erythromycin) to check for potential cross-reactivities. Skin tests with all the macrolides tested were negative in the three patients.

The basophil activation test (BAT), analyzing the expression of CD203c on patients' basophils by FACS (2), was positive for PMC in the three patients. The results are expressed as % of basophils expressing CD203c after in vitro PMC re-stimulation compared to % of basophils expressing CD203c without re-stimulation. The BAT was positive at 31% (control 2%), 69% (control 2%) and 70% (control 2%) for patients 1–3, respectively. The BAT was negative for the five antibiotics of the macrolide family.

To our knowledge, this is the first report of immediate allergy to PMC. We demonstrate that both skin tests and BAT are of value for the diagnosis of immediate allergy to PMC.

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Allergy from giant pumpkin (*Cucurbita maxima*) is not a fairy tale

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Key words: anaphylaxis; basophil; giant pumpkin (*Cucurbita maxima*)

A child with anaphylaxis from a giant pumpkin is presented. Diagnosis was established by history, skin tests and basophil activation test.

A 2.5-year-old boy was referred because of an allergic reaction with vomiting, coughing, dyspnoea, urticaria and angioedema almost immediately after drinking two spoons of home-made pumpkin (*Cucurbita maxima*) soup that contained pumpkin, onion, tomatoes, bouillon cube. He was successfully treated with epinephrine and budesonide nebulization. Since this event, he initially refused eating soup and solid foods. Gradually, soup (containing onion, bouillon cubes) and solids could be reintroduced. He tolerated pumpkin soup on several occasions in the past. Quantification of specific IgE (sIgE) and/or skin tests

