

Allergic urticaria from tonic water

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Key words: double-blind placebo-controlled food challenge; quinine; tonic water; urticaria.

• WE evaluated a 50-year-old male who was admitted to the emergency room because of generalized pruritus and urticarial lesions on his abdomen, arms, and face, as well as mild periorbital edema. He had no past medical history of chronic medical conditions. He denied a history of previous episodes of urticaria triggered by heat, cold, pressure, exercise, sunlight, emotional stress, medications, foods or food additives. The patient reported having had a half of a glass of tonic water 30–40 min before the onset of symptoms. In the emergency room, the patient was treated with intramuscular epinephrine injections (0.3 mg), methylprednisolone sodium succinate (60 mg), and dexchlorpheniramine (5 mg). His urticarial lesions disappeared within 8 h.

After obtaining informed consent, we investigated the patient and 10 healthy, non-atopic control subjects. We conducted skin prick tests for the same brand of tonic water at 1:10 dilution and quinine sulfate at 3 mg/ml. The response was evaluated 20 min later. A positive reaction was observed with tonic water (wheal: 4×5 mm in diameter; flare: 8×12 mm) and with quinine sulfate (wheal: 5×5 mm; flare 9×11 mm). The 10 control subjects had no skin test response to tonic water and quinine sulfate. The patient underwent an open oral challenge with increasing doses of the same brand of tonic water. Fifteen minutes after a 60 ml dose (5.4 mg of quinine hydrochloride) the patient developed pruritic wheals on his trunk and

arms. The suspicion of quinine as the causative agent prompted us to perform a double-blind placebo-controlled food challenge with quinine. Increasing doses of quinine sulfate or placebo (dextrose) were administered in opaque capsules at 30-min intervals. The verum and placebo were randomly given on two separate days with an interval of 48 h. The patient reacted with generalized pruritic wheals to a cumulative dose of 9 mg of quinine sulfate.

Quinine-related hypersensitivity manifestations have been reported to include thrombocytopenia and hemolytic uremic syndrome (1), lupus-like syndrome (2), photosensitivity (3), cutaneous vasculitis (4), and anaphylactic shock (5). In our patient, the results of oral challenges established a definite causal relationship between quinine and urticaria.

Furthermore, the positive results of skin testing suggest that urticaria resulted from an IgE-dependent hypersensitivity mechanism. Tonic water is widely consumed worldwide and may be an unrecognized cause of urticaria. The concentration of quinine in commercial beverages should be considered as a potential cause of acute IgE-mediated urticaria and angioedema.

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Immediate hypersensitivity due to pseudoephedrine

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Key words: ephedrine; epinephrine; hypersensitivity; pseudoephedrine.

• SYMPATHOMIMETIC agents are used widely but despite this extensive use as vasoconstrictors hypersensitivity reactions from sympathomimetic drugs are rare.

The most frequent adverse reaction is contact dermatitis

caused by

eyedrops,

eardrops, or any

topical preparations (1,2) and the most common reaction to oral

sympathomimetics is nonpigmenting fixed exanthema (3).

We present three cases of reactions to pseudoephedrine with different symptomatology: urticaria and anaphylaxis.

Case 1. A 33-year-old man took a rinoebastel tablet (pseudoephedrine and

Lower limb paresis due to contact allergy.

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Selective hypersensitivity to pidolate

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Key words: immediate hypersensitivity; pidolate; urticaria.

● PIDOLATE or pyrrolidone carboxylate is a salt of different metals such as calcium, magnesium, manganese or copper, which is used in therapeutics. We report the case of a patient diagnosed with selective hypersensitivity to the salt pidolate but not to other salts of metals.

A 31-year-old woman with a past history of cicatricial epilepsy (treated by valproic acid – Depakine®) and intermittent asthma had developed two episodes of generalized urticaria. The first episode occurred 2 years ago during pregnancy while she was having an intravenous infusion of salbutamol for contractions. This urticaria was associated with an

Provocation positive immediate urticarial reaction.

ebastine) for a cold. Two hours later, he noticed an itchy erythematous eruption all over his skin and a slight stomach ache. The patient was challenged orally with rinoebastel because the reaction had been slight and because of the lack of reports of immediate hypersensitivity due to pseudoephedrine with positive skin test. At 60 min he complained of burning in the palms and soles which was followed by the appearance of tender red plaques, with erythema and edema all over his skin. He also developed nausea and vomiting, acute stomach ache and hypotension (10/4). The oral challenge test with ebastine was negative. Cutaneous tests were also carried out: patch tests were performed with pseudoephedrine, phenylephrine, ephedrine and epinephrine (1% and 10% pet). All tests were negative at 48 h and 96 h. We performed skin prick tests and intradermal skin tests with pseudoephedrine, ephedrine, phenylephrine and epinephrine in aqueous solutions, 25 mg/ml for the prick test and 0.25 mg/ml for the intradermal skin test. Prick tests with pseudoephedrine and ephedrine were positive. The prick test and intradermal skin test with epinephrine and phenylephrine were negative. Prick tests and intradermal skin tests with pseudoephedrine and ephedrine were negative in 20 controls.

Case 2. One year ago a 22-year-old woman took a first dose of Narine, and excipients, for an allergic rhinoconjunctivitis. She presented 24 h later with an acute generalized urticaria that spontaneously disappeared in 24–36 h. We performed an oral challenge test with the suspect drugs. An immediate response was observed 1 h after taking Narine. She developed the same burning eruption and fever (38.5°C). The oral challenge test with loratadine was negative. The skin prick test and intradermal test were performed with pseudoephedrine only and the latter showed a positive reaction. Patch tests were negative.

Case 3. A 67-year-old woman took loratadine and pseudoephedrine for a catarrhal infection. Seven hours after the first dose of each medication she developed a generalized erythematodematosus rash without further desquamation and angioedema of the eyelids. The skin tests with sympathomimetic agents (prick test, intradermal and patch) were negative in

this patient. We made a single-blind placebo-controlled oral challenge test with increasing doses of loratadine, which gave negative results. However, the patient developed pruritic erythematous plaques over the trunk and extremities with angioedema of the eyelids and nausea and vomiting 7 h after taking pseudoephedrine.

Pseudoephedrine is widely used in many over-the-counter preparations. Most patients do not consider these significant and therefore neglect to report ingestion of such products. Further, it is not unusual for physicians to overlook ingestion of such products when obtaining a patient's history. To our knowledge, there are few published cases of adverse reactions to these drugs and there is only one case of urticaria (4). We present three cases of generalized immediate reactions with pseudoephedrine: an urticaria in the second patient and two cases of anaphylaxis in the first and third patients. The most reliable way to verify the cause of a suspected drug eruption is by oral provocation, but this is laborious and can be hazardous to the patient. A negative skin test gives no reliable information but a positive result excludes the need for oral challenge. The response to the cutaneous test was different for each of our patients and could have been diagnostic in the first and second patients. In the first patient we demonstrated cross-sensitivity in the prick test between pseudoephedrine and ephedrine (phenylpropanolamine-derived) but not with phenylephrine and epinephrine (phenylethanolamine-derived). Other published cases about generalized dermatitis due to oral pseudoephedrine have demonstrated cross-sensitivity between these drugs in patch tests (5). Our patients were instructed to avoid all pseudoephedrine and ephedrine containing products and they remain symptom-free.

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