

case report

Key words

Hyoscine-N-butylbromide • Anaphylaxis • Skin tests •
Rociverine • Oral challenge

Safety of rociverin in a patient with anaphylaxis from hyoscine-N-butylbromide

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Summary

Hyoscine-N-butylbromide is a drug with antimuscarinic and anticholinergic activity commonly used in the treatment of gastrointestinal and genito-urinary spastic-painful disorders. There are reports of allergic reactions to hyoscine-N-butylbromide. Here we describe a case of anaphylaxis in a 65 year-old woman, with generalized erythema, dyspnea, edema of the tongue, and fainting occurring a few minutes after intramuscular administration of hyoscine-N-butylbromide. Allergologic evaluation by skin tests (including SPT and intradermal tests, IT) showed a positive reaction to IT at a concentration of 2 mg/ml. To provide a safe alternative drug, the patient was then tested by skin tests and oral challenge by rociverine with no adverse reaction. Our case represents the first report of anaphylaxis with demonstration of the IgE-mediated mechanism to hyoscine-N-butylbromide. In patients with allergic reactions to such drug, rociverine seems to be a safe alternative.

Hyoscine-N-butylbromide is a drug with antimuscarinic and anticholinergic activity that is commonly used in the treatment of spastic-painful disorders of the gastrointestinal tract and genito-urinary tract. Its use is burdened by several side effects (drowsiness, tachycardia, dry mouth, constipation, urinary retention, mydriasis, visual disturbance and impaired accommodation, increased intraocular pressure, abnormal sweating) related to the anticholinergic effects of the molecule.

In front of the widespread use of this drug in clinical practice only rare episodes of urticaria or angioedema¹⁻³ and two fatal cases after administration of the parenteral preparation^{4,5} are described in the literature. In particular, González-Mendiola et al reported the case of a patient with urticaria caused by hyoscine-n-butylbromide who had positive skin prick test (SPT) and oral provocation test with the agent³.

We report the case of a 65 year-old woman who came to our observation because of the onset of malaise,

generalized erythema, dyspnea, edema of the tongue, and fainting occurring a few minutes after intramuscular (IM) administration of hyoscine-N-butylbromide to treat abdominal pain. The patient was initially evaluated by medical first aid but was then transported to the hospital where she received epinephrine 0.5 mg IM, intravenous (IV) methylprednisolone 1 g, IM chlorphenamine, and IV ranitidine 50 mg, with resolution of the acute phase in about 3 hours.

After two months from the reaction she underwent allergologic evaluation by skin tests (including SPT and intradermal tests) with hyoscine-N-butylbromide. SPT was carried out at a concentration of 20 mg/ml, while for intradermal test the concentrations of 0.02 mg/ml, 0.2 mg/ml and 2 mg/ml were used. Histamine dihydrochloride and glycerosaline solution were used as positive and negative control, respectively. The same tests at the same concentrations were also performed in 5 healthy subjects with no history of adverse reactions to drugs.

The SPT with hyoscine-N-butylbromide was negative, while intradermal test was positive at a concentration of 2 mg/ml (wheal diameter: 7 x 8 mm). All skin tests performed in the control group were negative.

Considering the severity of the reaction, the close temporal relationship between the drug administration and the onset of symptoms, and the results of skin testing an oral provocation test with hyoscine-N-butylbromide was not performed. In order to identify a spasmolytic agent to be used in case of need, skin tests with rociverine, a drug with antimuscarinic activity, were performed, using the concentration of 10 mg/ml for SPT and the concentration of 0.01 mg/ml for the intradermal test. The concentration of 0.1 mg/ml was not tested because gave positive result, attributable to irritative effect, in the control subjects. Both the SPT and the intradermal test at 0.01 mg/ml with rociverine were negative. The patient was subsequently tested with an oral challenge with rociverine 10 mg without any adverse reaction.

Our case represents the first report of anaphylaxis with demonstration of the IgE-mediated mechanism to hyoscine-N-butylbromide. In patients with allergic reactions to such drug, rociverine seems to be a safe alternative.

References

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