

A case of IgE-mediated allergy and cell-mediated allergy to Seaprose-S in the same patient

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Seaprose-S is a proteolytic semi-alkaline enzyme, obtained from fermentation of the fungus *Aspergillus melleus*. It is capable of exerting mucolytic, anti-inflammatory actions. Seaprose-S is active in different experimental models

by antagonizing inflammation induced by different biochemical substances. Therefore, Seaprose-S can be used in several inflammatory diseases. It is used to correct mucostasis and to improve the clearance of mucus in several pulmonary diseases, such as chronic bronchitis and bronchiectasis (1). Seaprose-S is also used for its anti-inflammatory properties in the treatment of ear, nose and throat (2), urological (3) and gynaecological

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conditions, and inflammatory venous disease (4). Seaprose-S is usually well tolerated, but it may occasionally cause adverse effects such as gastrointestinal symptoms and, rarely, drug rashes.

There are no reports in the literature of allergic reactions to Seaprose-S.

Case Report

A 52-year-old woman experienced angioedema and itching of the face a few minutes after ingesting one Seaprose-S (Flaminase®) tablet. The patient had previously been treated for a non-infectious, gynaecological inflammatory condition with Seaprose-S, with no side effects. The patient went to the emergency department, and was treated with intravenous hydrocortisone and intramuscular betamethasone and chlorphenamine.

As the symptoms did not recede after 1 hr, the patient was admitted to the dermatology department. The symptoms worsened, and the patient had also dysphagia, dyspnoea, and itchy flushing of the face, rapidly spreading to the whole body. The patient was then treated with decreasing doses of oral betamethasone (from a starting dose of 5.5 mg) and with oral ranitidine (150 mg daily) for 25 days, until symptoms resolved.

The patient was then referred to us, where she underwent prick and patch testing with Seaprose-S, as previously established by the European Network on Drug Allergy. The prick and patch tests were performed with the pure tablet powder diluted with a drop of saline as recommended when there are no standardized procedures and/or reagents (5).

The prick test elicited a strongly positive reaction after 20 min, with a wheal diameter of 10 × 8 mm. Patch tests gave positive results at D2 (++) and D4 (++). A delayed reading prick test also gave a positive result at D2. Control tests in 10 healthy subjects gave negative results.

Discussion

These findings were consistent with concomitant IgE-mediated and cell-mediated allergies to Seaprose-S in the same patient. This explains why the patient experienced an immediate reaction after the last drug intake, which was followed by prolonged cutaneous involvement.

This is the first report of an allergic reaction to Seaprose-S, and it underlines the possibility of concomitant IgE-mediated and cell-mediated reactions.

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