Occupational seafood allergy in a chef: a case report

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Background: Seafood plays an important role in nutrition and world economy, and nowadays it is a common cause of food allergy. Although reactions to seafood have been documented mainly among consumers, immune-mediated reactions have also been reported at work, and Chefs are among the most exposed occupational groups.

Case Report: A 31 years old male, who is working as a Chef on a cruise ship, was referred to our Allergy Dept for a 6 months history of hand dermatitis initially, and later located hives after handling seafood at work. Three months after the symptoms began, he experienced 2 episodes of anaphylaxis minutes after the ingestion of a small portion of shellfish and sea bass, and after the ingestion of codfish with shellfish sauce (angioedema, stridor, dyspnea, conjunctivitis, nausea, vomiting and diarrhea). The allergic reactions subsided at home after the administration of oral hidroxizine. Skin symptoms started 9 years after working as a cook, exacerbated during his workdays and he got temporary relief during absence of work. Skin prick test with common inhalants were positive to house dust mites, *parietaria judaica* pollen and to a fish allergen panel (rooster fish, monkfish, sea bass, salmon, sardine, tuna, trout, mullet, hake and sole); Prick-prick were positive to raw and boiled shrimp, hake, salmon, sea bass and raw cod. Patch tests were positive to raw shrimp, hake and raw and boiled sea bass. Specific IgEs (UK/l) were positive to cod (5,27), salmon (3,92), tuna fish (2,47), squid (1,16), sardine (3,78), shrimp (22,30) and cod parvalbumin rGad c1 (5,37). Patient was advised to avoid contact with seafood and always carry an emergency kit, with an epinephrine autoinjector in order to prevent lethal outcome if accidental exposure occurs.

Clinical Relevance of Report: Occupational exposure to seafood can be an important seafood allergy trigger, by other means than gastrointestinal exposure. Allergic contact dermatitis to seafood is a clinically relevant condition that should be included in the differential diagnosis of chronic dermatitis affecting the hands or forearms of patients at high occupational risk. Disruption of the skin barrier seems to be an important added risk factor to the development of IgE mediated food allergy.