



Asthma Exacerbation Associated to Glucosamine-Chondroidine Supplement

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Dear Editor

Many evidences of hypersensitivity to shrimp in atopic individuals and cross-reactivity among crustacea do exist, as demonstrated by positive reactions to shrimp skin tests and RAST ratios to the other crustacea even in the absence of prior exposure. IgE-mediated, type I mechanisms, appear to be operative in crustacea-sensitive individuals, particularly those with concurrent respiratory allergy [1].

Although tropomyosin has been described as an important allergen in crustacean [2], other allergens may be involved in allergenicity. Glucosamine which composes the exoskeleton of crustaceans may represent another important allergen of the shellfish [3]. Interestingly, the glucosamine contained in dietary supplement for treatment of arthritis has been associated to asthma exacerbation in an atopic subject [4]. The authors concluded with a warning for physicians to be wise to question their patients about use of dietary supplements as self-medication and consider the possibility of such supplements causing exacerbations of underlying conditions.

We may infer that the patient described in the cited report were also intolerant or allergic to crustaceans.

At present, many manufacturers of glucosamine derived from shellfish include a warning that those with a seafood allergy should consult a physician before taking the product.

On the contrary, a recent animal study evidenced a role for glucosamine as an antiallergic in mice with allergic asthma and rhinitis [5].

In any case, recommendations for surveillance of atopic patients especially those with allergic asthma and allergy to crustaceans, who use dietary supplement containing glucosamine, must be kept in mind by physicians, advising them to use alternative non-shellfish derived form of glucosamine.

References

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