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PREVALENCE OF CROSS-REACTIVITY BETWEEN HOUSE DUST MITES AND OTHER INVERTEBRATES IN CHILDREN WITH BRONCHIAL ASTHMA

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Background. Exposure to dust mites sources is an important cause of asthma exacerbations. The molecular component Der p10 is considered the minor allergen responsible for inducing cross-reactivity between mites and crustaceans, mollusks, insects and fish parasites -anasakis simplex.

Objective of the study. To study the prevalence of cross-reactivity in asthmatic patients sensitized to house dust mites.

Der p 1

EAACI Molecular Allergology User's Guide 2016

Materials and Methods. The study group included 196 children with bronchial asthma. 73 patients (76%) are sensitized to house dust mites. In most patients, the major allergens Der p1, Der p2, Der p23, Der f1, Der f2 predominate. Sensitization to the Der p10-tropomyosin allergen was detected in 7 patients (9.58%) of which 4 patients (5.47%) were found to have cross-reactivity with Anisakis simplex fish worms Ani s3, crustaceans and molluscs: Pen m1, Chi spp, Hom g, Rud spp; insects Ten m, Loc m, Ach d, Per a7, Blo t10. Two patients reported reactions to the consumption of shrimps and some types of fish manifested by urticaria, oropharyngeal discomfort, lip oedema and cough, two others reported suspicious reactions sometimes correlated with the consumption of crustaceans.

Results and Conclusions. Dust mites represent the main source of indoor aeroallergens (76%). The prevalence of Der p10 was detected in 9.58% of which in 5.47% with the presence of crossreactivity with crustaceans-molluscs. The patients' symptoms with this type of sensitization is described as the mitecrustacean-mollusk syndrome. Early detection of patients with mite-crustacean-mollusc cross-reactivity is required by the severity of symptoms and the risk of anaphylactic reactions.