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CHR D 2020: Abstract Submission Form

Submitter Name

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Title

Characterization of bony fish allergy and its relationship with atopic dermatitis in Manitoba children

Background

Bony fish allergy affects 1% of Canadian children, is common in Manitoba and is rarely outgrown. Atopic dermatitis (AD) is the most common inflammatory skin condition in children and has been increasingly documented to be associated with food allergy development. We examined bony fish allergy and its relationship with AD among Manitoba children.

Objective

We retrospectively reviewed medical records of all children with bony fish allergy from Manitoba and surrounding regions followed at the Children's Hospital Pediatric Allergy Clinic.

Methods

We collected data from patient charts regarding age of bony fish allergy diagnosis, sensitization measured by skin prick testing or specific IgE level, allergy resolution, and presence and severity of AD. We also recorded the child's biological sex, history of allergy to other foods and family history of atopic conditions. We used multivariable logistic regression to examine the association between resolution of bony fish allergy and moderate-to-severe AD, after adjusting for potential confounders.

Results

Of the 297 children with bony fish allergy (median age 4.3 years, range 4.7 months-18 years), 67.3% had atopic dermatitis, 27.9% had moderate-to-severe atopic dermatitis, 64.3% had other food allergies, 53.7% had asthma, 39.1% were female and 69.7% were sensitized to more than one type of fish. Six outgrew fish allergy, 1.9% with and 2.5% without moderate-to-severe AD. After adjusting for sensitization to multiple versus one type of bony fish, children with moderate-to-severe atopic dermatitis were equally likely to outgrow bony fish allergy (OR 1.17, 95% CI 0.21-6.63) compared to children with absent-to-mild atopic dermatitis. Children who outgrew their fish allergy were more likely to be sensitized to only one type of

bony fish (p=0.04).

Conclusion

Atopic dermatitis severity was not associated with outgrowing bony fish allergy. Bony fish monosensitization was associated with outgrowing bony fish allergy and reasons for this association require further study.

Theme:

Clinical

Do you have a table/figure to upload?

No

Are you willing to participate in Goodbear's Den?

Yes

Presenter Status:

Masters Student

What was your role in the project?

Collected/analyzed data, wrote abstract

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