Validation of food hypersensitivity phenotypes using longitudinal observation and atopic sensitization data in the first 6 years of life

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Objective: To validate food hypersensitivity (FH) phenotypes in the survey using data of the 6-year examination and allergic sensitization assessment at 1, 3, and 6 years.

Methods: 196 children with FH symptoms diagnosed on the 1st and 2nd year of life were recruited in the outpatient department and completed 6-year follow-up. Skin prick testing and specific IgE detection was performed at 1, 3 and 6 years (n = 98, 53, 24, respectively). Using questionnaire and clinical examination and laboratory data at 6m, 12m, 2, 3 and 6 years we classified children into FH phenotypes: transient early, persistent, late-onset.

Results: It was found that non-immune FH mechanisms were commonly seen in patients with late-onset and persistent phenotype (p<0.05). Children with transient FH symptoms both were as allergic, as non-allergic. Early onset phenotype patients more often had clear association with causative product and in almost ¾ developed food tolerance.

Conclusion: Immune FH more often manifests during first year of life. Late onset, especially after 2 y.o. as usual associated with food intolerance reactions, particular if clear cause of the reactions is not seen.