

An epidemiological study of food intolerance in 2434 children

[Article in Chinese]

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Abstract

OBJECTIVE:

To investigate the epidemiological characteristics of intolerance to 14 foods in children and the relationship between food intolerance and disease of various systems.

METHODS:

Serum samples of 2434 children with diseases were collected for food intolerance testing between January 2009 and October 2012. Allergen-specific IgG antibodies to 14 foods were detected using enzyme-linked immunosorbent assay. The children's intolerance to different foods and its relationship with age, sex and disease of various systems were analyzed.

RESULTS:

Among these children, positive rates of intolerance to milk and eggs were as high as 74.16% and 66.47% respectively, while positive rates of intolerance to chicken and pork were relatively low (0.29% and 0.21% respectively). The overall positive rates of food intolerance were 12.579% and 12.470% in males and females respectively. For infants, the highest intolerance rate was to milk; for preschool and school-age children, the highest intolerance rates were to milk and eggs respectively; for children in adolescence, the highest intolerance rate was to eggs. Among children with food intolerance involving single system, those with developmental abnormality or immune system disease had the highest overall positive rate of food intolerance. Children with double-system diseases had an overall positive rate of food intolerance as high as 13.393%. Among the children involving various systems, the positive rate of intolerance to milk and eggs were higher than other food.

CONCLUSIONS:

Factors influencing food intolerance in children include food categories and age. There may be a relationship between food intolerance and disease of various systems, and this is significant to the growth and development of children.