Etiology and clinical feature of oral allergy syndrome in children

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Purpose: Oral allergy syndrome (OAS) is a unique allergic reaction to fresh fruits or vegetables, which is caused by cross-reactivity between in food and pollens. This study was conducted to investigate clinical feature of OAS and relevant pollen allergens as well as their association in Korean children.

Methods: This study was based on a data analysis of 97 patients, who were diagnosed with oral allergy syndrome at Ajou University Hospital, Kangnam Severance Hospital, Severance Children’s Hospital from January 2008 to December 2014. Clinical details were collected by medical history and telephone survey. The relevant pollen allergen determined by skin prick tests (SPTs) result or/and serum specific IgE level.

Results: The prevalence of OAS is on the rise in this study group. The most common causative food of OAS is apple, followed by peach, kiwi, watermelon and plum. All of apple-OAS patients were sensitized to tree pollens. Birch is the most frequent sensitizing pollen in total subjects. Among patients who sensitized to birch pollen, 74.3% had reaction to apple and 34.3 % had reaction to peach. Among patients who sensitized to ragweed pollen, 15.6% had reaction to watermelon. More than 50% of patients with OAS have oral allergy reaction to multiple foods.

Conclusion: OAS was relatively common in pollen-sensitized children. OAS should be concerned in children with allergic disease and sensitization to pollens.