Clinical features of allergic rhinitis in children of Shanghai, China

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ABSTRACT. The aims of the current study were to assess the clinical features of allergic rhinitis (AR) in children in Shanghai. Serum-specific IgE (sIgE) tests were performed on samples from patients with AR symptoms from January 2011 to December 2014. A disease-related questionnaire was completed after AR diagnosis. The allergen profile and clinical features of AR were analyzed. In total, 2713 AR patients were enrolled in this study. *Dermatophagoides pteronyssinus* was found to be the most common offending allergen in the study population. With increasing age, the prevalence of sIgE against inhalant allergens was significantly increased; however, the opposite trend was observed for food allergens. Additionally, the proportion of children with high levels of sIgE against *D. pteronyssinus* increased with age. Of the AR cases, 8.6% were classified as intermittent mild, 4.2% as persistent mild, 40.5% as intermittent moderate-severe, and 46.7% as persistent moderate-severe. A family history of allergies and a patient history of allergies within 6 months of birth were significantly associated with the duration and severity of AR symptoms. The occurrence of co-morbidities, such as allergic conjunctivitis, cough, and asthma, gradually increased from

intermittent mild, persistent mild, and intermittent moderate-severe to persistent moderate-severe. The most frequently used drugs were topical corticosteroids and oral antihistamines, which were used by 86.7 and 79.0% of patients, respectively. These results confirm the adequacy of the Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines for classifying AR patients, and advance the understanding of clinical features of AR in children in Shanghai, China.