Allergic rhinitis as a predictor for wheezing onset in school-aged children.

Abstract:
Rhinitis in older children and adults has been shown to be a predictor for adolescent- and adult-onset asthma. These findings suggest an interaction between the upper and lower airways. Whether rhinitis is a predictor for childhood-onset asthma is unknown. We sought to investigate whether rhinitis in early childhood is an independent predictor for wheezing between the ages of 5 and 13 years in the German Multicentre Allergy Study birth cohort. The German Multicentre Allergy Study cohort initially included 1314 healthy children. They were followed from birth to the age of 13 years with regular questionnaires and interviews. Specific IgE levels were measured at yearly intervals. Airway hyperresponsiveness was assessed at 7 years. Allergic rhinitis until the age of 5 years was found to be a predictor for developing wheezing between the ages of 5 and 13 years, with an adjusted relative risk of 3.82 (P < .001). This association was not attributable to the type of sensitization, the severity of sensitization, or atopic dermatitis during the first 2 years of life. In this group of children, 41.5% of all new cases of wheezing occurred among children with preceding allergic rhinitis. The first manifestation of allergic rhinitis occurs in preschool children in whom it is a predictor for subsequent wheezing onset. Preschool children with rhinitis might thus benefit from early assessment of allergic sensitization to identify the children at high risk of wheezing.