

Correspondence

Prevalence of asthma in young children

To the Editor:

Recently, Wijga et al¹ investigated the prevalence and incidence of wheeze with a special emphasis on sex differences. Their short letter contains important information on allergic symptoms of Western young generations. They concluded that the prevalence (incidence) of wheeze in boys was significantly higher than that in girls.

The author previously reported the prevalence of asthma by using a standard questionnaire in Japanese children.² A total of 24,631 children at the ages of 0, 1, 2, and 3 years were surveyed. The parents of the target population completed questionnaires about the symptoms of asthma. Each local government agreed to the study protocol. The Committee on Human Health Survey in Gunma Prefecture approved this study. Informed consent was obtained from all the families of the subjects. The response rate was 70.7% (17,402/24,631). Statistical analysis was performed by using the SPSS 16.0J software package for Windows (SPSS Japan, Inc, Tokyo, Japan).

A positive answer to all 6 questions of the American Thoracic Society—Division of Lung Disease (ATS-DLD) questionnaire³ categorized the subject as having asthma. The 6 questions were quoted in Kawada² (Table I). By logistic regression analyses, it was found that male gender, increasing age, and family history of asthma significantly contributed to an increase in the risk of asthma.

In order to compare his data with the data presented by Wijga et al,¹ the author newly defined a child as having wheeze when at least 1 of the 6 questions of the ATS-DLD questionnaire was positively answered. The prevalence of wheeze at ages 0, 1, 2, and 3 years was 6.1 (196/3201), 13.5 (329/2445), 17.4 (125/717), and 21.6 (481/2231) in boys, and 4.3 (137/3214), 9.4 (227/2412), 11.2 (85/759), and 14.4 (308/2142) in girls. By using a χ^2 test ($P < .01$), it was found that the prevalence of asthma differed by gender at all ages.

Although the trend of wheeze prevalence by age was different from the values presented by Wijga et al (Table II), the prevalence

of wheeze in boys was significantly higher than that in girls at all ages. Dissociation might partly be derived from definition, because the prevalence of asthmatic wheeze presented in Table II showed a slightly increasing trend. In addition, Wijga et al speculated that sex differences in asthma might be explained by the higher prevalence of atopy in boys. On this point, there was a related information that the prevalence of atopic dermatitis in boys at ages 0 and 2 was higher than that in girls ($P < .01$).²

There are relatively fewer studies looking at the prevalence of asthma in young children.^{4,5} The standard simple ATS-DLD questionnaire was used to calculate the prevalence of wheeze in the children in this study, and further study is needed to reach a final conclusion.

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