



Correspondence

Recurrent wheezing in infancy

Is the tropic different?



To the Editor: We read with interest the article by Larenas-Linnemann et al¹ about risk factors for wheezing in infancy in primary health care settings in the tropics. They concluded that infant wheezing is frequent in the tropics; most infants have their first episode between 2 and 4 months of age. More than 40% of them are brought to the emergency department, which indicates a considerable burden on health care costs. In addition, their study points out several possible risk and protective factors related to the presence of wheezing, some of which were not reported previously.

The International Study of Wheezing in Infants (EISL) is a cross-sectional, multicentric study that applies a standardized and validated questionnaire to parents of infants aged 12 to 15 months who attended health centers in primary care settings for routine visits or immunization.^{2,3}

In our experience, the EISL questionnaire provided findings similar to those of the study by Larenas-Linnemann et al on the prevalence and associated factors of recurrent wheezing (RW) in the first year of life.^{4–7}

Among the 30,093 infants surveyed, 45.2% (95% CI 44.7%–45.8%) had at least 1 episode of wheezing, and 20.3% (95% CI 19.8%–20.7%) had RW. The mean prevalence of RW in Latin American (LA) and European Union (EU) centers was 21.4% (95% CI 20.9%–21.9%) and 15.0% (95% CI 14.0%–15.9%), respectively ($P < .001$). There was significant morbidity associated with RW in terms of severe episodes (59.4%), visits to emergency departments (71.1%), and hospital admissions (26.8%). The prevalence of RW in infants during the first year of life was high and varied among localities. A significant proportion of infants progress to a more severe condition, which results in high use of health resources (visits to emergency department and hospitalizations). The prevalence of RW is lower and less severe in EU than LA countries, which suggests that there is a higher risk for the disease in developing areas.⁸

The risk factors for RW in infants from LA and EU centers were studied and compared. Among the 28,687 infants studied, the most important independent risk factors for RW (in both LA and EU centers) were having a cold during the first 3 months of life and attending nursery school. Other risk factors were as follows: male sex, smoking during pregnancy, family history of asthma/rhinitis, infant eczema, and mold stain in household walls. Breastfeeding for more than 3 months provides protection from RW. Mothers who are university graduates are protected only in LA countries, yet most risk factors for wheezing are common in both LA and EU countries.⁹

In a new phase of EISL, 7 years apart, 12,405 infants from 11 centers in 6 South American countries were involved. Risk factors were Spanish-language speaker, household income per month less

than US \$1000, history of parental asthma, nursery school attendance, male sex, tobacco use during pregnancy, having colds in the first 3 months of life, and protection factor from breastfeeding for more than or equal to 3 months.¹⁰

In conclusion, there are few differences in the risk and protective factors for wheezing in the first year of life worldwide. Socio-economic factors seem to be related to RW rather than geographic or climatic conditions.

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