

Correspondence

The effect of prophylactic palivizumab on recurrent wheezing in children with an atopic family history

To the Editor:

We read with great interest the article by Simões et al¹ entitled “The effect of respiratory syncytial virus on subsequent recurrent wheezing in atopic and nonatopic children.” The first report from this cohort² showed that the use of palivizumab in preterm children without chronic lung diseases produced an impressive 50% reduction in recurrent wheeze at age 3 to 4 years. This important study, in conjunction with years of literature pointing to a causative role for respiratory syncytial virus–induced bronchiolitis in the development of asthma,^{3–7} suggests that reducing the severity of respiratory syncytial virus infection in infants might be a feasible preventive measure.

The current study reanalyzes the original cohort by using subgroup analysis to determine whether the strong protective effect of palivizumab prophylaxis is modified by the child’s atopic predisposition. The authors conclude that the effect of palivizumab is only protective in children without an atopic family history. However, this conclusion appears to be driven by a lack of significance in the underpowered analysis of the atopic group. The difference between the groups does not appear to be significant. Indeed, the trend for both subgroup analyses, family history of asthma (relative risk, 0.56) and family history of all atopy or food allergy (relative risk, 0.69), continued to show a potentially substantial protective effect. Based on the absolute risk reduction, the number needed to treat to prevent 1 case of physician-diagnosed recurrent wheeze in children with a family history of asthma is 9.1 compared with 14.3 in children without a family history of asthma and identical to the number needed to treat for those without a family history of any atopy or food allergy.

Considering the trends seen and the potential importance of this treatment modality in the development of asthma, a prospective randomized clinical trial to determine the efficacy of such an antiviral intervention in the prevention of asthma in this population seems even more important.

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Disclosure of potential conflict of interest: W. Phipatanakul receives research support from the National Institutes of Health. The rest of the authors have declared that they have no conflict of interest.

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doi:10.1016/j.jaci.2010.09.039