

Correspondence

Reply

To the Editor:

We are writing in reply to the comments of Vaughn¹ regarding our publication in the June 2010 issue of the *Journal* in which we described a diminished effect of allergen-specific immunotherapy (SIT) in asthmatic children receiving montelukast.²

We aimed to verify the potentially favorable effect of montelukast on SIT. Unexpectedly, at the end of the first year of SIT, children without montelukast had 16% greater reduction in the inhaled corticosteroid (ICS) dose necessary to control their asthma symptoms than children treated with montelukast. Indeed, there was no significant difference between montelukast and placebo intervention in the reduction of asthma symptoms score, but this could be easily explained by the study design, which required adjusting the ICS dose to the current asthma control. None of our patients were left without an adequate dose of ICS that fully controlled their symptoms. We can speculate that an additional anti-inflammatory treatment with montelukast in stable patients pushed the balance between allergic inflammation and the anti-inflammatory effects of premedication toward suppression of natural regulatory mechanisms that control immunologic responses to allergen. It should be noted that a similar effect on SIT has been shown in patients premedicated with systemic steroids on the day of allergen administration.³

An important finding of our study was the relatively frequent incidence of exclusion from the placebo group as a result of asthma deterioration during the active intervention period (build-up phase of SIT). The high dropout rate left the per-protocol population of the placebo group underpowered, and this also

suggests that montelukast offers some protection from asthma deterioration and improves tolerance of immunotherapy. Unfortunately, our study has not been designed to assess such effects and did not allow us to fairly calculate the benefit/risk ratio of montelukast treatment during SIT. Obviously, asthma control during SIT must be maintained, but diminishing SIT's effectiveness, even slightly, is also difficult to accept.

Probably it is possible to overcome this clinical problem by adding a long-acting β_2 -agonist to regular treatment with ICSs or by increasing the ICS dose in children with asthma deterioration during SIT.

Paweł Majak, MD, PhD
Iwona Stelmach, MD, PhD

From the Department of Pediatrics and Allergy, Medical University of Lodz, Lodz, Poland. E-mail: alergol@kopernik.lodz.pl.

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