

Reply

To the Editor:

We would agree with Dr Melamed¹ that our concerns about patients receiving venom immunotherapy (VIT) who are taking angiotensin-converting enzyme inhibitors (ACEIs) being at increased risk for anaphylaxis from their immunotherapy² might also be appropriate for other types of immunotherapy as well. However, the patients receiving VIT might represent a special population. As he mentions, they have already been selected out from the general population because they have already experienced an episode of anaphylaxis from a stinging insect. This is usually not the case in atopic patients who are receiving specific immunotherapy (SIT) for environmental allergies. This might be why desensitization has been so problematic in patients with severe food allergies.

That a patient receiving VIT is taking an antihypertensive agent means that they are already at an increased risk for myocardial events. Additionally, these patients are often older and might have more comorbid disease. Unlike patients receiving SIT, VIT is often not considered an elective therapy and must be given despite these considerations. Iatrogenic anaphylaxis from immunotherapy might have more severe consequences in such a population, and risk reduction is more critical.

At this point in time, when the specific risks of ACEI therapy in patients receiving any type of immunotherapy is not clearly defined, the authors would prefer that any patient receiving VIT or SIT not take β -blockers or ACEIs. Withholding an ACEI antihypertensive medication for 24 hours before VIT or SIT is not as desirable as not taking the medication at all, particularly given that there is variability in the half-lives of these medications.

Sometimes, however, there is no alternative to taking an ACEI, given their wide therapeutic spectrum and efficacy. At some point, holding back on the ACEI is going to have some deleterious effects on the patient's hypertension or underlying heart disease, and this needs to be balanced into the equation as well. The cardiologists that we have talked with are comfortable with withholding ACEIs for 24 hours but not longer than this. Alternative medications, such as diuretics and calcium-channel blockers, would clearly be preferable in patients receiving VIT and perhaps SIT when appropriate.

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REFERENCES

1. Melamed J. Response to life-threatening anaphylaxis to venom immunotherapy in a patient taking an angiotensin-converting enzyme inhibitor. *J Allergy Clin Immunol* 2004;113:1224.
2. Ober AI, MacLean JA, Hannaway PJ. Life-threatening anaphylaxis to venom immunotherapy in a patient taking an angiotensin-converting enzyme inhibitor. *J Allergy Clin Immunol* 2003;112:1008-9.
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Anti-idiotypic antibodies could explain inhibition of allergen-IgE binding to B cells after grass pollen immunotherapy

To the Editor:

Wachholz et al¹ report grass allergen-dependent IgE binding to B cells. This phenomenon was inhibited by incubation with serum from patients who had received grass allergen injection immunotherapy. The inhibitory factor was demonstrated to copurify with IgG and was allergen specific. The authors postulated that grass-specific IgG antibodies might compete with grass-specific IgE for allergen.

Bee venom injection immunotherapy has been demonstrated to induce the formation of bee venom anti-idiotypic antibodies.² Allergen-specific anti-idiotypic antibodies might also be induced by grass pollen injection immunotherapy. Such anti-idiotypic antibodies could bind to the antibody binding sites of grass-specific IgE and thereby block the binding of antigen. Such a phenomenon could account for the ability of sera from patients who have received immunotherapy to inhibit the allergen-dependent IgE binding to B cells demonstrated in this report.

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REFERENCES

1. Wachholz PA, Kristensen Soni N, Till SJ, Durham SR. Inhibition of allergen-IgE binding to B cells by IgG antibodies after grass pollen immunotherapy. *J Allergy Clin Immunol* 2003;112:915-22.
2. Khan RH, Szwedczuk MR, Day JH. Bee venom anti-idiotypic antibody is associated with protection in beekeepers and bee sting-sensitive patients receiving immunotherapy against allergic reactions. *J Allergy Clin Immunol* 1991;88:199-208.

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To the Editor:

We thank Dr Simon¹ for his suggestion that anti-idiotypic IgG antibodies directed against allergen-specific IgE, rather than IgG directed against grass allergen, might explain the IgG-dependent blocking activity that we detected after grass pollen immunotherapy.² Dr Marshall cites anti-idiotypic responses in the context of bee venom immunotherapy, a situation that might be quite different from immunotherapy for mucosal allergy. The anti-idiotypic response was identified after immunotherapy in only 3 patients.³ In another study involving 51 bee venom-sensitive patients, all of whom were assessed by means of provocation testing, the presence of anti-idiotypic antibodies appeared to correlate with the failure of immunotherapy.⁴ We did not measure anti-idiotypic antibodies. It is theoretically possible that immunotherapy might provoke production of IgG antibodies that recognize the variable region of IgE specific for grass pollen and inhibit binding of allergen-IgE complexes to B cells while preserving allergen specificity in our assay. For example,