

Letter to the Editor

Sublingual immunotherapy is not always a safe alternative to subcutaneous immunotherapy

To the Editor:

Increasing numbers of children are treated for respiratory allergies by sublingual immunotherapy (SLIT). Specific immunotherapy is a causal treatment, and regardless of whether it is administered as subcutaneous immunotherapy (SCIT) or SLIT, there is a potential to induce IgE-mediated reactions. The clinical efficacy of SLIT is established for pollen allergies, and it is considered as a safe procedure with limited, mostly local side effects, but its efficacy relative to SCIT is still controversial.^{1,2}

We report 2 adolescents on SLIT after significant side effects with SCIT. In both patients, SLIT had to be stopped after systemic side effects.

The first patient is a 14-year-old girl diagnosed with allergic asthma and rhinitis. The history reported severe symptoms during spring and lesser symptoms during the summer. No asthma symptoms were reported outside the pollen season. Her allergy workup disclosed a positive skin prick test and specific serum IgE to birch, hazel tree, grass mix, rye, plantain, and ragweed pollens, as well as *Alternaria*. Preseasonal SCIT was started with mix of 50% grass pollen, 20% birch, 15% rye, and 15% of plantain (Allergovit; Allergopharma, Reinbek, Germany). Recurrent immediate itchy and painful large local reactions at the injection site lasting for 2 to 4 days, in the absence of any systemic side effects, were observed. The treatment was discontinued, and the patient was started on SLIT with a mix of 80% of grass pollens and 20% rye pollens (Stalloral 300; Stallergenes, Antony, France). The treatment was started 4 months before the pollen season on an ultrarush protocol with increasing dose every 20 minutes up to a total of 8 drops. During this procedure, the patient complained about tongue and mouth itchiness but did not need any rescue medication or modification of the administration protocol. She continued the treatment at home with 8 drops/day, but reported a severe asthma attack 1 week later together with mouth itchiness immediately after SLIT, lasting for several hours. She was instructed to stop SLIT for 2 days and then to restart with progressive doses up to 4 drops. However, she had to discontinue SLIT because of repeated asthma attacks time-related to the treatment.

The second patient we report is a 13-year-old boy diagnosed at 10 years with allergic asthma and a seasonal and chronic rhinitis. The history was also positive for symptoms after contact with cats and horses. The skin prick test work-up was positive for grass and cereal pollens, dust mites, molds, and cat dander. He was started on SCIT with 2 separate injections, the first with a mix of grass (80%) and rye (20%) pollens, and the second with a mix of *D pteronyssinus* (50%) and *Dermatophagoides farinae* (50%; Phostal; Stallergenes). After the first injection, the patient reported shortness of breath and was wheezing. He recovered immediately after receiving a β_2 -agonist inhalation and an oral antihistamine. One week later, he was administered the same dose and rapidly complained about chest tightness. For the next 2 injections, the patient was pretreated with an antihistamine but still developed shortness of breath and an immediate large local reaction at the site of injection. The treatment was discontinued because of these side effects. He was then started on SLIT with a mix of 80% grass

and 20% rye pollens (Stalloral 300) and 10 weeks later with a mix of *D pteronyssinus* (50%) and *D farinae* (50%; Stalloral 300). The treatment was administered by an initial ultrarush protocol, followed by 8 drops on alternate days with each mix. After starting the dust mite treatment, he complained of heavy nasal congestion, which finally resulted in stopping the dust mite preparation, with a rapid relief of the symptoms. The grass mix SLIT was well tolerated and stopped after grass pollen season as indicated. In late fall, the dust mite mix was started again by ultrarush with a good tolerance, but with reoccurrence of heavy nasal congestion together with increased symptoms of asthma. SLIT treatment was stopped by the patient, followed by rapid symptom relief.

Both patients presented here had important side effects after SCIT, justifying discontinuation of immunotherapy. Because of the excellent safety profile of SLIT in the literature and the absence of reported systemic side effects,³ we felt that in these highly motivated patients, SLIT would be an efficient⁴ and safe alternative to SCIT.⁵ However, both patients had respiratory—that is, systemic—side effects. In the first patient, they even progressed from large local reactions with SCIT to respiratory reactions with SLIT, thus increasing in severity.

With this report on 2 patients started on SLIT because of significant side effects of SCIT, we would like to attract the clinician's attention to potential systemic side effects with SLIT despite the good safety profile generally reported for this procedure.^{6,7} Special caution should be exerted in patients with a previous history of side effects on immunotherapy, because SLIT does not represent a totally safe immunotherapy procedure.

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