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Titel des Beitrags:
Short-term subcutaneous grass pollen immunotherapy under the umbrella of anti-IL-4: A randomized controlled trial.

Abstract:
Allergen immunotherapy is currently the only disease-modifying treatment available for allergic rhinitis and allergic asthma. We sought to evaluate the induction of sustained tolerance to allergen when anti-IL-4 was combined with a suboptimal course of grass pollen subcutaneous immunotherapy (SCIT) using the allergen-induced skin late-phase response (LPR) and exploratory immune monitoring as surrogate markers of therapeutic response. In this randomized, double-blind, 3-group parallel design trial, 37 participants with seasonal allergic rhinitis received suboptimal SCIT (30,000 standardized quality units) in combination with anti-IL-4 (VAK694) and suboptimal SCIT (30,000 standardized quality units) plus placebo antibody or double placebo (placebo SCIT and placebo antibody) restricted to 13 weeks before the grass pollen season. The primary end point was the size of the LPR at 12 months. Exploratory end points included measures of the immunomodulatory activity of treatment by using IL-4 and IL-10 FluoroSpot assays, flow cytometry of T cells, and measurement of IgE, IgG4, and facilitated antigen binding. Both active treatment arms led to a substantial and sustained reduction of the LPR with no additional
suppression with addition of anti-IL-4. Treatment with anti-IL-4 and SCIT compared with SCIT alone led to a sustained reduction in allergen-specific IL-4-producing cell counts (P< .01). Both active treatment arms led to induction of dual IL-4/IL-10-producing cells during the pollen season. The combination of anti-IL-4 with SCIT provided no additional benefit over SCIT alone in suppressing the allergen-induced skin LPR. A larger trial is needed to assess whether the observed ex vivo downregulation of TH2 responses might translate into clinical benefit.