

Subcutaneous immunotherapy with mannan-conjugated birch pollen allergoids shows long-term effects already after 2 years of treatment by inducing a significant immune response in birch pollen allergic patients

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Rationale

Allergen immunotherapies aim to change the immune system in order to alleviate allergy symptoms in the long term. These therapies usually last several years, but first effects can already be detected after 1-2 years. Here, we determine the immunologic effects of 10.000 mTU/mL mannan-conjugated birch pollen allergoids (T502).

Methods

Immunological parameters (bet v1 specific IgE, IgG4) were analyzed before and after treatment with either T502 or placebo in 2 double-blind, placebo-controlled trials and 1 subsequent open follow-up study with patients who received placebo or T502 in the year before.

Conclusions

Immunologic effects of the birch pollen allergoid T502 were already strong after the first year of treatment and increased with prolonged treatment for an additional year.

Results

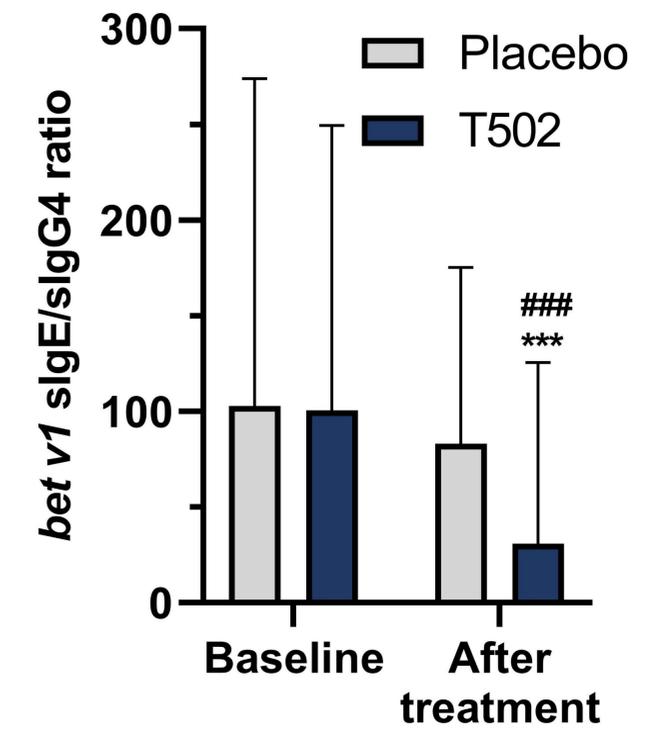
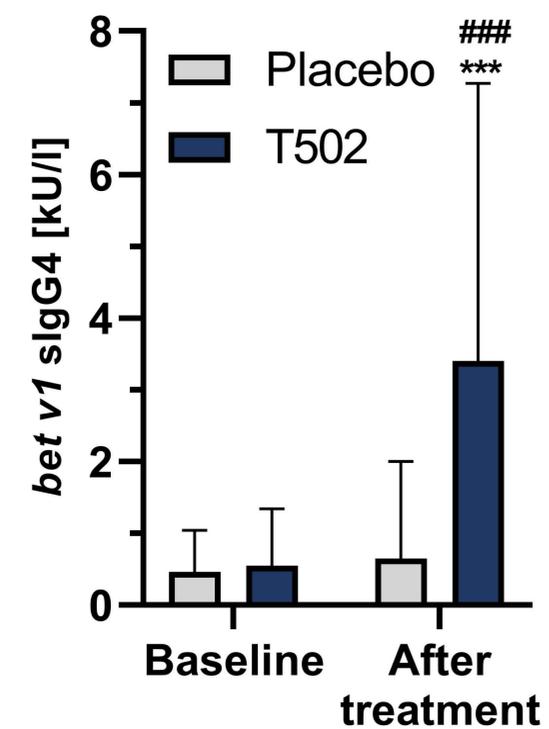
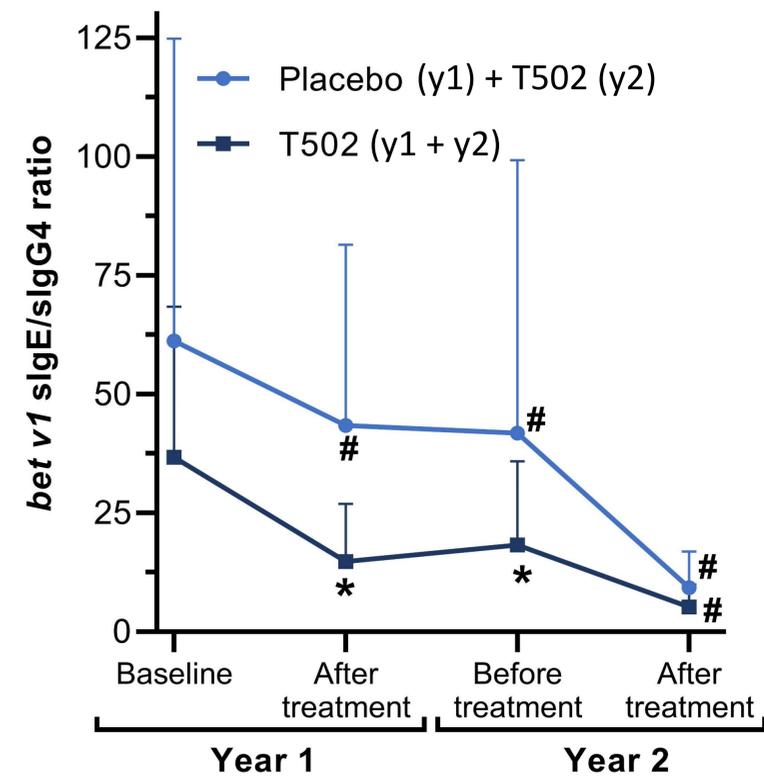
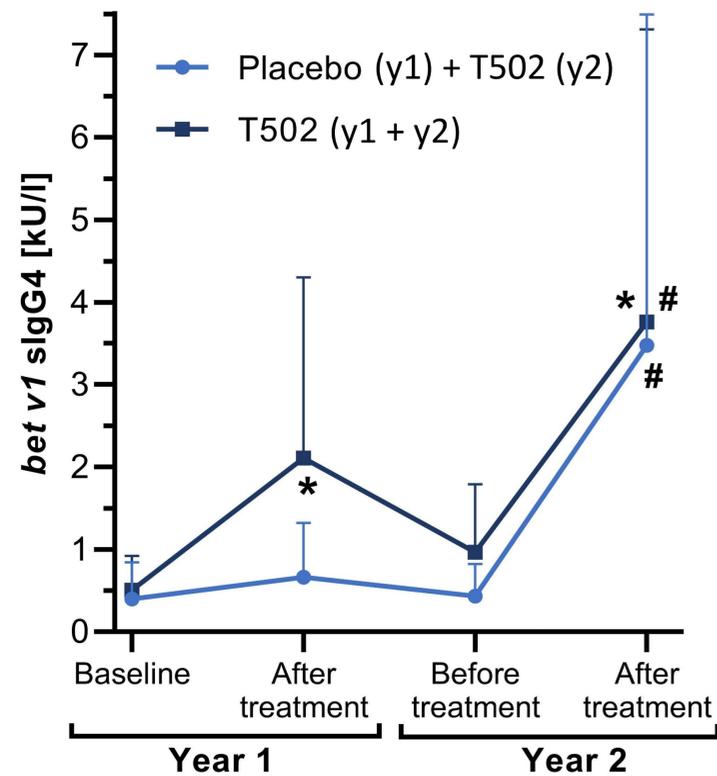


Figure 1: Bet v1 sIgG4 before and after treatment in 2 consecutive years. Patients were treated with placebo or T502 in the 1st year and both groups 10 000 mTU/mL in the 2nd year. Data is expressed as mean + SD. *p<0.01, in comparison to placebo. #p<0.05, in comparison to baseline.

Figure 2: Bet v1 sIgE/sIgG4 ratio before and after treatment in 2 consecutive years. Patients were treated with placebo or T502 in the 1st year and both groups with 10 000 mTU/mL in the 2nd year. Data is expressed as mean + SD. *p<0.01, in comparison to placebo. #p<0.05, in comparison to baseline.

Figure 3: Bet v1 sIgG4 before and after treatment in the pivotal Phase III trial. Patients were treated with placebo or T502 in the 1st year and 10 000 mTU/mL in the 2nd year. Data is expressed as mean + SD. ***p<0.0001, in comparison to placebo. ###p<0.0001, in comparison to baseline.

Figure 4: Bet v1 sIgE/sIgG4 ratio before and after treatment in the pivotal Phase III trial. Patients were treated with placebo or T502 in the 1st year and 10 000 mTU/mL in the 2nd year. Data is expressed as mean + SD. ***p<0.0001, in comparison to placebo. ###p<0.0001, in comparison to baseline.