



Insect Venom

380 - Changes of laboratory parameters in patients treated by venom immunotherapy

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Background: The assessment of effectiveness of venom immunotherapy (VIT) is problematic at present. The only relatively reliable method - sting challenge – can be ethically problematic. That is why other parameters which could indicate the effectiveness of VIT are being searched for.

Method: We examined two groups of subjects. 1st group - subjects with verified honeybee venom allergy treated by VIT - examined repeatedly in 1 year intervals. 2nd group - subjects without honeybee venom allergy symptoms (control group). Specific IgE to honeybee venom by means of CAP method and specific IgG4 and IgE to phospholipase A2 by means of immunoblotting were assessed. Expression of CD63 on peripheral basophils (BAT) after honeybee venom exposure was assessed as well.

Results: In group of subjects treated with VIT positivity of specific IgE (CAP) and positivity of BAT was found in the beginning of VIT (1st year). BAT was negative in 100% in the control group, but specific IgE (CAP) was positive in 25% in the control group. We did not observe changes of specific IgE antibodies (CAP, immunoblotting) during VIT. We detected increase of IgG4 and decrease of IgE to phospholipase A2 during further years of VIT. BAT remained positive after five years of VIT in 36% of subjects.

Conclusion: Changes in specific IgG4 and IgE to phospholipase A2 and changes in BAT to honeybee venom during immunotherapy were expected. These changes are in concordance with findings, that patients after repeated stings do not show allergic reaction. We suppose, that monitoring of specific antibodies together with BAT could be useful in estimation of VIT efficacy in individual patients.

