#1245 - Comparison of bee and wasp venom allergic patients treated by venom immunotherapy

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## Introduction

Risk factors may play a role in various aspects of Hymenoptera venom allergy, such as the severity of sting reaction and efficacy of venom immunotherapy. Most often discussed factors are patient's age, gender, insect type, elevated baseline serum tryptase, concomitant medication and preexisting cardiovascular and respiratory diseases. The aim of our study was to characterize in detail our bee and wasp venom allergic patients, compare detected characteristic features and thus indentify risk factors in both groups.

## Objectives

80 bee and 65 wasp venom allergic patients treated by venom immunotherapy were included in our study. Every patient filled in a questionnaire and was individually interviewed by a physician. All data – patient's age, gender, grade of reaction (I. – IV.), comorbidities, concomitant medication, character of previous sting reaction, localization of sting, baseline serum tryptase, field re-sting reaction - were collected and statistically processed separately in bee and wasp venom allergic group.

## Results

More men (65% vs 46%), more children (21.25% vs 7.7%), lower average age (33.7 vs 44.7 years) and higher number of systemic sting reactions in previous clinical history (23.7% vs 9.2%) were seen in bee venom in contrast to wasp venom allergic patients. Wasp venom allergic patients significantly more frequently reacted by the IV. Mueller's grade (36.9% vs 17.5%), more often suffered from arterial hypertension (24.6% vs 11.25%) and more often were treated by beta-blockers (18.5% vs 5%) than bee venom allergic patients. Significantly more bee venom allergic patients reacted on field re-sting during treatment (16.21% vs 3.3%). We didn't find significant differences in sting localization, in other comorbidities, in other concomitant medication, in previous large local sting reactions, in tryptase levels and in re-sting reactions after treatment between study groups.

## Conclusions

Wasp venom allergic patients are older, suffer more often from arterial hypertension, take more often beta-blockers and suffer more often from the most serious sting anaphylaxis in comparison with bee venom allergic patients. Our finding suggests that wasp venom immunotherapy may better prevent anaphylaxis during treatment than bee venom immunotherapy.