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## The role of postive influence of venom immunotherapy (VIT) on other allergies

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**Introduction:** Venom immunotherapy (VIT) is the definitive treatment of Hymenoptera venom allergies. Hymenoptera venom allergy is an immunoglobulin E (IgE)- mediated hypersensitivity to the venom of the insect order Hymenoptera. This allergic reaction may be caused by stings from a number of species in this insect order, occurring only in persons who have previously been sensitized to Hymenoptera venom.

**Signs and Symptoms:** Most Hymenoptera stings cause small local reactions of no significant medical consequence, these usually peak in intensity at 48 to 72 hours. Large local sting reactions typically resolve gradually over 5 to 10 days Systemic reactions cause signs and symptoms in one or more organ systems and are almost always IgE-mediated. Systemic reactions usually cause signs and symptoms starting within minutes following a sting. In general, the sooner the symptoms occur, the more severe the reaction is.

**Pathophysiology:** Both systemic and large local reactions to stinging insects are usually caused by IgE-mediated reactions to Hymenoptera venom. At least one prior sting is required to sensitize a person to venom, and sensitization is more likely to occur following multiple simultaneous stings or subsequent stings occurring over a relatively short period of time. Once sensitization has occurred, a sting can cause mast cell and basophil degranulation, resulting in release of the histamine and other inflammatory mediators responsible for the signs and symptoms of anaphylactic and some large local reactions. Allergic reactions to bee venom can be severe enough to cause anaphylactic shock, which can be fatal.

**Allergy Efficacy of VIT (Venom immunotherapy):** VIT is extremely efficacious in preventing subsequent systemic reactions in patients with stinging insect allergy. Efficacy is highest with mixed vespid venom; it is 98% effective in preventing subsequent systemic reactions with a maintenance dose of 300 µg (100 µg per venom ) During the period of two years of VIT of my observed patients, I verified that the subjects 12 years old; gender: female and 26 years old gender male was allergic in: pollens and bee venom with anaphylactic allergic reaction. Specific Ig- E was detected with POLYCHECK (Bio-Check). Until now I'm performing by schematic regimen SCIT in the upper external side of arm and every time the patient is under my observation for 30 minutes After one year of VIT with Anallergo vaccine, my patients has repeated Specific Ig-E on pollens and hymenoptera venoms, with the parameters of to first patient:

**Bee Venom has Fallen from 5-4; Alder Pollen:** 1-0; Birch pollen : 2-0; Hazelnut pollen: 2-1; Beech pollen: 2-0; Oak pollen: 2-1; Pine: 2-0; Rhizopus nigrans: 2-0; Grass mix: 3-1 and house dust from 2-0. Second patient A.V. 25 yrs old, gender M allergic on pollens and bee venom after one year of VIT with Anallergo vaccine the parameters of bee venom has fallen down: 6-3; beech pollen : 1-0; house dust mites: 1-0; grasses mix: 2-2 has remained the same.

**Material and Methods:** L-Tyrosine-adsorbed subcutaneous immunotherapy (SCIT) for hymenoptera venom ANALLERGO (Apis mellifera) L-tyrosine delayed immunotherapy consists of two initial vials and one maintenance vial. The role of L-tyrosine is to slow down allergen bioavailability.

**Conclusion:** So I need to follow 3 -5 years (the duration of immunotherapy) the patients analysis for definitive conclusion about the efficiency of VIT and its correlation of positive influence to pollen allergy? But not only VIT on this down below example of one difficult case report and mastocytosis can be evaluated and the combination of anti Ig-E treatment with Omalizumab can be combined. It's reported that 2-5 % of subjects can present false negative results in "vivo" and in "vitro" testings such as: SPT; IDR testings; specific Ig-E detections. It's recommended to perform testings minimum after 4 weeks after a sting, if negative after 2,6 months if still are negative always to think about mastocytosis and occult mast cell release performing serum tryptase levels, BAA with flow cytometry to detect CD63+ and CD203c+ which are markers of basophil activation because is evaluated one case report with fatal consequences on Medscape.

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