

EFFECTIVENESS OF OMALIZUMAB AND BEE VENOM IMMUNOTHERAPY COMBINATION: CASE REPORT

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KEY WORDS: hymenoptera venom anaphylaxis, bee venom allergy, omalizumab, immunotherapy

BACKGROUND

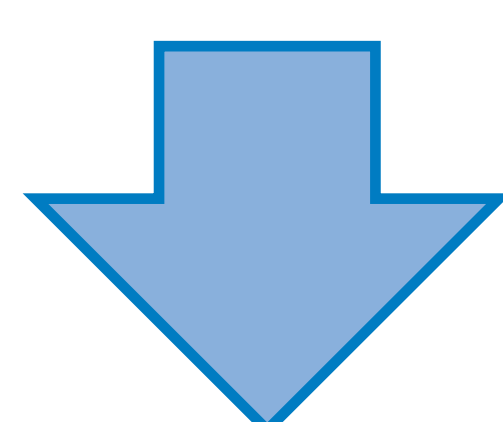
Bee venom immunotherapy (b-VIT) is a therapeutic option established in anaphylaxis by hymenoptera venom. Some cases about omalizumab (anti-IgE monoclonal antibody) and b-VIT combination have been reported in order to suppress systemic reactions developing due to b-VIT itself.

PURPOSE

To describe the efficacy of omalizumab avoiding anaphylaxis risks due to b-VIT.

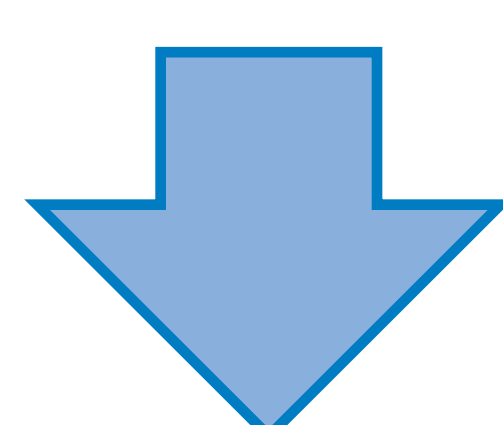
MATERIAL AND METHODS

33-year-old beekeeper woman
Asthmatic, with severe naphylaxis due
to hymenoptera venom



b-VIT

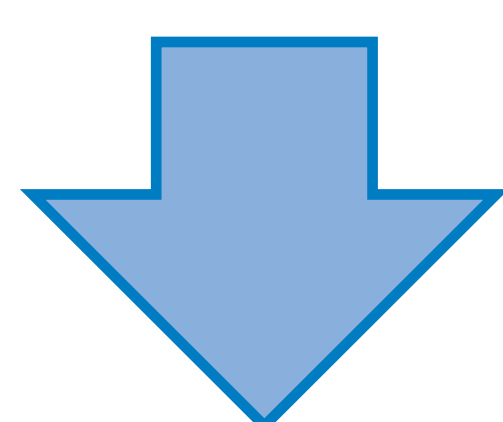
(Estimated protected dose: 100 – 200 mcg)



Management difficulties suffering systemic
reactions

RESULTS

After omalizumab administration the dose
of one arm was increasing while the
other arm was decreasing proportionally
until reaching the dose of 100 mcg
in one arm



Shortly after she had a completely
asymptomatic new bee sting

Table 1. b-VIT schedule administration previous use of omalizumab

WEEK	POSOLOGY OF b-VIT*	INJECTION	OBSERVATIONS
0	20 mcg --- 30 min ---- 20 mcg	Differents arms	None
+ 1	30 mcg --- 30 min ---- 30 mcg	Differents arms	None
+ 2	40 mcg --- 30 min ---- 40 mcg	Differents arms	None
+ 3	50 mcg --- 30 min ---- 50 mcg	Differents arms	Local reaction
+ 7	50 mcg --- 30 min ---- 50 mcg	Differents arms	Local reaction
+ 11	50 mcg --- 30 min ---- 50 mcg	Differents arms	Local reaction
+ 15	50 mcg --- no space-time --- 50 mcg	Differents arms	ANAPHYLAXIS GRADE III
+ 16	New bee sting ANAPHYLAXIS		
+ 19 - 51 (each 4 weeks)	50 mcg --- 30 min ---- 50 mcg	Differents arms	Omalizumab OFF-LABEL authorised

*2 similar doses injected in different arms separated of an 30 min interval each, except +15 week, without space-time between them.

Table 2. b-VIT schedule administration in combination with omalizumab

WEEK	POSOLOGY OF b-VIT*	INJECTION	OBSERVATIONS
+ 55	Omalizumab 300 mg only	-	None
+ 59	1° Omalizumab 300 mg --- 120 min--- 2° 60 mcg --- 30 min ---- 40 mcg	Differents arms	None
+ 63	1° Omalizumab 300 mg --- 120 min--- 2° 80 mcg --- 30 min ---- 20 mcg	Differents arms	None
+ 65	New ASINTHOMATYC bee sting		
+ 67	1° Omalizumab 300 mg --- 120 min--- 2° 100 mcg	One arm	None

*2 doses injected in different arms (or just one) separated of an 30 min interval each after 120 min of omalizumab injection.

CONCLUSION

- Omalizumab and b-VIT combination was effective to suppress undesirable systemic reactions in our patient. The last asymptomatic sting foresees good expectations in its use.
- There are few evidences of this off-label use. It is necessary to observe if the patient could continue the treatment without omalizumab in the future, even at higher b-VIT doses if necessary.

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