Recommendations: greenhouse workers

My Bumblebee venom available in Spain from ALK

Little cross-

Hyaluronidase

Search Methods: numerous literature & research

An Main Results:

11 observational studies: systemic rxs to VIT 131/921

P Ap Systematic review aqueous and depot vespid and

Bo Bo Ap 13 3 No significant differences between aqueous & depot extracts

Incidence systemic reactions 25.5% honeybee venom & 5.8% vespid venom (p<0.0001)

Ve Ve M 6/24 (Api m 1) venom.

Hyaluronidase


No significant differences between aqueous & depot extracts

- New Recommendations of the Insect Committee
- Negative VST in (+) Hx may be more common than thought & not exclude presence of VS IgE
- VST & VS IgE may be complementary & need to be repeated
- (-) VST or in vitro assay is not guarantee of safety, & pts should be counseled about avoidance & emergent care
- Management of Hx (+) VST (-) pts requires clinical judgment & ongoing research


- >500 patients with systemic reactions to insect sting, IDST & VS IgE (RAST)
- 25 had (-) VS IgE; 22 evaluated within 1 year, 15 within 6 months
- ID VST: 11 (-), 7 (+), 2 (2+), 4 (3+), 1 (4+)
- SXS: hives/angioedema 20, shock & hypotension 3, respiratory 6, GI 1


- 101 Hymenoptera allergic pts with 4-day Rush IT: 1st 0.001, .01, .1, .2, .4; 2nd .8, 1, 2, 4, 6; 3rd 8, 10, 20, 40, 60; 4th 80, 100mcg
- Pretreated with IV H1 antihistamine
- 52 honey bee venom, 49 yellow jacket venom
- 100 pts reached maintenance dose
- 8 systemic reactions (0.47% all injections) in 7 pts
- HBV SR 12%, YJV 2%

Methods
- 5 day rush IT with 100µg maintenance dose
- interval between injections progressively increased by 1 week increments until 12 week interval achieved after ~19 months
- field re-stings monitored

Results
- 12 week interval achieved in 117/128 (91%) YJV & 35/50 (70%) HBV patients
- 152 Rx’d ~2yrs without VIT reactions
- 48 YJV restung 77x without systemic reaction
- 17 HBV restung >213x with 1 large local & 1 mild systemic reaction

Indications for Venom Immunotherapy

<table>
<thead>
<tr>
<th>Sting Reaction</th>
<th>(+) ST or sIgE</th>
<th>(-) ST or sIgE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic</td>
<td>Yes</td>
<td>No (judgement required)</td>
</tr>
<tr>
<td>Cutaneous NLT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Child (&lt;16 years)</td>
<td>Not required</td>
<td>No</td>
</tr>
<tr>
<td>Large local</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Absence of history</td>
<td>No (?)</td>
<td>No</td>
</tr>
</tbody>
</table>


Systemic T-cell unresponsiveness during rush bee-venom immunotherapy.

- Methods
  - Rush IT in 7 patients with bee venom sensitivity
  - PBMC depleted of phospholipase A\_2 binding cells (specific B-cells & basophils)
  - stimulated with PMA & analysed for CD69, CD45RO\^+, IL-2, IL-4, & IFN-\(\gamma\) production
  - cells studied @ day 0, day 3, & day 5 of IT

- Results
  - reduced levels of CD69, IL-4, & IFN-\(\gamma\) compared to normal donors
  - progressive reduction during IT
  - no change in IL-2
  - cells from atopics showed greater degree of IL-4 & IFN-\(\gamma\) expressing cells among CD45RO\^+ T-cells than normals


Discontinuing venom immunotherapy:
Outcome after five years.

- Methods
  - volunteers stopped VIT after 5 yrs maintenance
  - sting challenges, ST & IgE q1-2yrs after d/c VIT

- Results
  - systemic reactions occurred in 8/270 stings, or 7/74 patients; only 2 clinically significant
  - venom ST negative in 28% after 5 yrs VIT; negative in 26-67% of patients 2-4yrs after stopping VIT with parallel decrease in venom-specific IgE

- Conclusions
  - venom IT can be safely stopped after 5 years of maintenance in virtually all patients (except for those with unchanged sensitivity?)
  - venom sensitivity decreases with time, & stings do not cause resensitization
  - late onset, non-IgG long-term suppression

- Retrospective review 65 IFA sensitive patients on IFA-WBE & 11 sensitive patients not treated
- 47 IT patients had 112 field stings, 1 systemic (2.1%)
- 6/11 non-IT patients had field stings, all had systemic reactions
- Sting challenge in 30, local reactions only
- ST negative in 26/31 IT patients, lesser in 5
- ST unchanged in 4 non-IT patients