ALLERGY SOCIETY
ALLSA
OF SOUTH AFRICA

Information Sheet

ALLERGIC REACTIONS TO HONEY BEE AND WASP STINGS

While everybody enjoys the outdoors and fun in the sun and water during the hot South African Summer months, many insects of the order Hymenoptera, which include Honey Bee (*Apis mellifera*), the Yellow Jacket Wasp (*Vespula germanica*) and the Paper Wasp (*Polistes emarginata*) are very active and may sting more people in Summer than in the Winter months.

These social insects only sting in self-defence if disturbed, although the African Bee is known to be more aggressive than the other Honeybees in other countries.

The Honeybee is the only insect to leave a stinger behind. The female worker honeybee carries the barbed stinger and dies soon after discharging the sting. It is thus easy to identify the Honeybee as the culprit - whereas the wasp does not leave a stinger behind.

Honeybee venom allergy is much commoner in South Africa, whereas in Europe wasp stings are more common.

Clinical Features of Sting Allergy

Normally some redness, pain and swelling will result at the site of the sting - but this usually resolves in a few hours.

In the allergic individual, a more long lasting and severe reaction will occur. A mild reaction will include intense redness, swelling, itching and pain all occurring within minutes. More severe reactions include a generalized swelling and itching, faintness, sweating a pounding headache, stomach cramps or vomiting, a feel of impending doom, a tight chest or choking sensation with swelling of the throat and in extreme cases anaphylactic shock with death resulting.

Life threatening reactions are more likely to occur in people who are already known to be very allergic to bee venom, older people with pre-existing heart and chest complaints, or with multiple stings.

Avoidance Measures

People allergic to bee and wasp stings should try to avoid being stung, and stay away from areas that bees and wasps frequent e.g. open dustbins, uncovered cold drink cans etc. If a swarm of bees approach run for shelter as bees are slow fliers and can normally be outrun.

Keep an insecticide spray in the kitchen or car and always have a “bee cloth” handy to trap insects and prevent being stung. Certain allergic individuals seem more prone to bee stings and appear to “attract” bees. Wasps and bees are drawn to flower fragrances and clothing with bright colours on dark backgrounds. Therefore avoid dark clothing (white is safest), perfumes, fruit juices and eating fruit out of doors, hair tonics, suntan lotions and floral odours. Warn young children not to stick their fingers into flowers, as bees are often busy collecting pollen. Wear covered shoes and avoid walking barefoot on flowering fields or clover-covered lawns. Carefully shake out any clothing left on the ground. Cover dustbins and any foods out of doors. Do not mow lawns, trim hedges or prune trees in mid Summer. Bees and wasps tend to frequent clover fields, picnic areas and soiled dirt bins in particular.

If one comes across a beehive, don't disturb it - beekeepers will be glad to come and remove it. Wasp nests should have petrol or kerosene applied to them and destroyed.

Prophylactic Management

Patients who are prone to severe reactions to bee stings should carry an adrenaline injection with them for self-administration. Others should carry antihistamine pills. All bee-allergic patients should wear a Medic Alert bracelet.

Treatment

When stung, look immediately for the barbed stinger in the case of a bee sting and carefully remove it by flicking it or scratching it out of the skin with the fingernail or a pointed object. Don't squeeze it, as more venom will enter the skin from the stinger sack. Stings to the head and neck are more dangerous. Immediately apply ice or cold compresses to the sting site.

A reliable diagnosis of the allergy is essential, including a reliable identification of the stinging insect. A CAP RAST test on a small blood sample will prove sensitization. Skin prick tests for venom are not usually done, especially for patients who may be very allergic to the venom.

Allergy shots or Specific Immuno-Therapy (SIT) treats the actual cause of the allergy and not just the allergic symptoms. This series or injections must be given by an experienced doctor in a properly equipped surgery. Specific Immuno-Therapy against bee venom allergy has been proven to give 96% protection against bee sting allergy.

The Specific Immuno-Therapy injections (1cm needle and into the fatty tissue of the upper arm, NOT into muscle) are given every seven to fourteen days (this schedule is moderately flexible, depending on your own lifestyle) initially and then every six to eight weeks for three to five years. This means that six to eight injections a year for bee SIT can possibly save your life. SIT is covered by Medical Aid schemes.

Emergency Treatment

With less severe reactions, antihistamines may be administered by injection or given orally. A rapidly acting antihistamine such as “Phenergan” is best. Cortisone is also very effective, but takes a few hours to act. For a severe reaction, a tourniquet should be applied to the limb and adrenalin injections are required immediately; these measures are life saving. Preloaded adrenaline syringes are available fro emergency use (for example “Epipen”). Proper medical treatment should be sought immediately. Contact your medical practitioner for further information.

Written by Dr Adrian Morris

See the ALLSA Internet site at:
http://www.allergysa.org

This sheet is available from:
ALLSA, PO Box 88,
Observatory 7935