Sunday Times Combined Metros 30 - 25/05/2011 02:48:02 PM - Plate:

When a bee is more than just a bee

Life-threatening allergic reactions are on the increase. *Claire Keeton* investigates

FURTHERAESTHETICS

ONE morning a healthy, young editor was on the balcony at his office when he was stung by a bee and collapsed. He has a life-threatening allergy to bees and the symptoms get worse with every sting.

"Immediately, my chest started closing up and I started walking to the chemist. Half way there I felt like I was going to die," he says. "When I got there, they referred me to the (nearest) clinic. I was admitted and put on a drip. The next time, a bee got into the cuff of my motorbike jacket on the way to work and stung my left hand. I gave myself a shot of adrenaline with the EpiPen and a colleague called the ambulance."

He says: "The first time I was stung by a bee I was 12, on holiday in Plettenberg Bay. I got a rash and was itchy. My brother found me lying in bed, struggling to breathe and they called a doctor."

His story is not unusual.

Eating peanuts, prawns, and exercising after eating wheat are among the potentially fatal allergies that have landed people I know in hospital. Anaphylaxis — a life-threatening acute allergic reaction — is increasing, particularly among people up to 20 years old, states a recent article in The Journal of Allergy and Clinical Allergy

Professor Paul Potter, director of the University of Cape Town's Allergy Diagnostic and Clinical Research Unit and head of Allergology at Groote Schuur Hospital, says: "There has been an increase in all allergies and in anaphylaxis. Twenty years ago about 5% of the population had (general) allergies. Now that is up to about 20%."

Dr Adrian Morris, director of the Cape Town Allergy Clinic, says studies confirm this. "Usually they start in childhood, progress in what we call the 'allergic march' and often they run in families," he says.

While anaphylactic reactions are sudden, children and adults at risk normally have some warning.

"Usually people do not die on the spot the first time they are exposed," says Morris. "They will have a generalised large reaction, such as a rash or a big swelling."

The common triggers for anaphylaxis include insect stings, medicines and foods, according to the review in The Journal of Allergy and Clinical Allergy.

Potter says Western lifestyles — which include processed diets, stress and indoor living — seem to be aggravating allergies. But outdoor jobs are not always risk-free. In one case, a snake handler became sensitised to the sprayed venom of a spitting cobra he used in demonstrations. He had never been bitten by the rinkhals.

Novel triggers are constantly being identified and these include newer generations of medicines. Potter says: "More recently, newer antibiotics known as cephalosporins, which are similar in chemistry to penicillin, have caused adverse reactions. Numerous antibiotics (about 20 to 30 types) can potentially be life-threatening and patients and doctors always have to have precautions in place to treat reactions early, should they occur."

He says the widespread use of drugs such as non-steroidal anti-inflammatories for sports injuries and among older people with arthritis means that doctors are seeing more acute reactions, even to these drugs. Some people develop allergies as a result of occupational exposure, such as working in a fish factory or pharmaceutical factory, or from latex in a hospital environment.

Potter says of latex allergies: "People get itchy eyes, asthma and may get anaphylaxis. They may also react to latex in gloves, sporting equipment, condoms, mouse pads and clothing." But, he says: "Peanuts are the most commonly reported trigger for anaphylaxis, particularly among young children."

Half of people allergic to peanuts also react to other nuts and legumes, and hazelnuts are another common trigger.

"Seafood allergies, usually to crustaceans, have been known for years but we have even seen reactions to abalone," says Potter, particularly among people in the Cape who eat abalone as a subsistence food or work with it. Seafood and peanut allergies usually persist while allergies such as egg and milk "tend to go away" by the time a child goes to school.

A new finding is that some people go into anaphylactic shock when they combine exercise with eating shellfish, grains (wheat and barley) or celery. Potter says: "We have known about exercise-induced asthma, but this is a recent discovery." People with this condition typically do not react if they eat the foods without doing any exercise for four to six hours after consumption.

Common allergens, such as tree nuts or seafood, must be labelled under regulations that were published last year. These will be listed under ingredients or below the ingredients table. MSG, tartrazine and preservatives and additives known to be allergenic will also be listed.

A curious allergy has just been identified: mopane worms. "The first few cases were identified last year in Limpopo, Zimbabwe and Botswana," Potter says. The UCT allergy institute is studying uniquely African allergens, including Kikuyu grass, Eragrostis pollen, locusts and abalone.

During an attack, the person with the allergy should go straight to a hospital as most GPs do not have resuscitation equipment or oxygen.

Morris says: "They must go to an emergency unit, and try to stay calm so that their circulation doesn't increase too much."

● WARNING SIGNS OF ANAPHYLAXIS

Allergies develop after the body is sensitised to a protein or proteins in an allergen.

Professor Paul Potter says: "Everyone is exposed to allergens. Most people develop a tolerance and protective immunity." But some people have a harmful response that activates the release of too much histamine and other substances in their blood. This will drop their blood pressure and, if not reversed with adrenaline, the person will go into shock, have circulation failure and can die.

A rash, severe swelling in the throat or mouth, tightness in the chest, difficulty breathing, sweating, nausea and confusion are typical symptoms.

An acute attack will typically take place within 15 minutes if the allergen is injected and within half an hour to 45 minutes if it is swallowed.

To prevent collapse, people at risk must carry an injecting pen with adrenaline (EpiPen) and anti-histamines, and should wear a MedicAlert bracelet.

● DIAGNOSING ACUTE ALLERGIES

If you have an allergy to bees, it will be ranked at four types of severity:

Grade 1 — a reaction or swelling at the site of the sting;

Grade 2 — allergy spreads from the site;

Grade 3 — allergy spreads systemically throughout cells in the body. This a precursor of anaphylaxis;

Grade 4 — life-threatening acute allergy attack, needs immediate hospital treatment and adrenaline.

The standard tests for allergies — skin, blood and elimination, or challenge, tests — are usually safe. However, challenge tests should be conducted by a qualified health professional in a medical institution, who will do a detailed clinical history and have full resuscitation facilities.

Allergology is a new sub-speciality in SA and the training of specialists offers greater opportunities for better diagnosis and treatment.

— Source: Professor Paul Potter