African Snakebite Institute

E-Mail: johan@africansnakebiteinstitute.com
Tel. +27(0)824942039
Fax +27(0)86 525-2559
www.africansnakebiteinstitute.com
Skype Bugudada

2 May 2013

REPTILE NEWS

Hi all,

A newspaper article that appeared in Volksblad Newspaper recently relating to first aid in snakebite. It appeared next to an article that was based on my previous newsletter in which I discussed snakebite, especially the large number of people being bitten by Mozambique Spitting Cobras.

Herewith a translation of the article (my very best effort):

The first ten minutes after a bite are critical and the correct treatment is very important, according to Dr. Jan Bosch.

1). The positive identification of the snake responsible is very important. Try and establish what snake it was.

2). Thereafter administer a large dosage of cortisone (specifically Dexamethazone/Bethametazone) plus antihistamine (Celestamine 1-4 tablets) or by injection. It prevents shock, swelling and anaphylaxis against antivenom. Also two aspirins as this helps against the anticoagulant effect of some venoms.

3). Immediately suck the venom out. Y have about ten minutes before the fang punctures swell and close up. Use anything to suck the venom out – any apparatus or a pipe or a 10 ml syringe with the end cut off. Anything that causes a vacuum. Suck the venom out as quickly as possible without cutting the site of the bite.

4). The apply a tourniquet. Splint the limb thereafter. If you have to choose between the loss of a limb or the person's life, you choose the latter. You can even amputate the finger with an axe as this could be life-saving.

5). Lastly get professional help at the closest medical centre where antivenom is available Watch the patient's breathing – by assisting with ventilation you can even save a Black Mamba bite victim.

Firstly, I accept that this appeared in a newspaper and there may have been poor communication between Dr. Bosch and the reporter but most of what was said in the report is wrong, dangerous and some of it barbaric.

1). The identity of the snake responsible for a bite may well help but is not critical. If a doctor knows what snake bit a person, he/she may well know what to expect but the doctor does not treat a Mamba or a Cobra bite but rather the symptoms. It often happens that a person is bitten by a potentially lethal snake and very little or no venom is injected and for this reason it is important for the doctor to observe symptoms and treat the bite accordingly. If we look at snakebites throughout Southern Africa, the vast majority of snakebite victims have no idea what snake they were bitten by and more than 98% of snakebite victims that are hospitalised are treated successfully. If you can safely photograph a snake that was responsible for a bite it may be very useful but killing snakes to take along for identification is never a good idea. A second bite will really complicate matters.

2). Although cortisone and antihistamine is routine administered in snake bites, it does not prevent anaphylaxis. Although a very large proportion of people that receive antivenom have some allergic reaction, it is very mild in most cases. In severe cases victims may go into anaphylaxis and that is life-threatening. It is treated with adrenaline and doctors that deal with many snake bites are familiar with this treatment. Deaths from anaphylaxis resulting from the administration of antivenom are rare.

As for aspirin, it should never be given to any snake bite victim as one of many dangers in severe snake bites is organ failure, especially where predominantly cytotoxic and haemotoxic venoms are involved. Although Aspirin may cause some pain relief it also has an antiplatelet effect by inhibiting the production of thromboxane.

3). Sucking venom out is a myth and there is ample evidence that in the event of any snake bite, the venom is absorbed immediately by the lymphatic system and various tests have shown that less than 2% of venom injected can be removed by suction, even immediately after a bite. So don't waste your time. And that the fang punctures swell closed after 10 minutes is absolute nonsense. Using some of the commercial sucking devices will do no good but may cause tissue damage. Also remember that many potentially deadly snakes may bite and inject no or very little venom and the majority of snakebite victims (up to 80% in some instances) survive bites without antivenom.

4). Tourniquets are bad news and should not be used. Most snake venoms are absorbed and spread through the lymphatic glands and tourniquets are therefore useless in most instances. In predominantly cytotoxic bites where the victim experiences pain and excessive swelling, a tourniquet could easily contribute to compartment syndrome and the potential of losing the limb.

As for chopping of the finger with an axe, this is crazy and barbaric. We have between 6,500-10,000 snake bites per year in Southern Africa with between 10-50 deaths. Imagine more than 6,000 people chopping off a finger! The vast majority of snakebite victims that are hospitalised survive the bite – to suggest that a finger is chopped off is bizarre to say the least.

5). Some very good advice. In the event of a bite from a snake with a predominantly cytotoxic venom like a Puff Adder or Mozambique Spitting Cobra, the victim is going to experience a lot of pain and swelling but as these venoms do a great deal of tissue damage they do not usually spread that rapidly. The biggest danger is a predominantly neurotoxic venom, like that of the Cape Cobra or one of the Mambas. In severe cases victims may experience difficulty with breathing within 20 minutes and in such cases it may be life-saving to resort to artificial respiration while transporting the victim to a hospital. First-aider are trained to do mouth to mouth but a Bag Valve Mask may be a far better

choice, provided that the first aider has had adequate training in its use. In severe bites it is usually a lack of oxygen that kills the victim.

I have written to Volksblad Newspaper expressing my concern that their readers may follow the really bad advice given in the newspaper but never received a response. I guess yesterday's news is old news.

Equipment

I have received stock of Bag Valve Masks, Snake Tongs and Snake Hooks. The Snake Gaiters have been ordered from the USA and I hope to have stock within a few weeks.

Courses

The **Bloemfontein** Snake Awareness, Identification, First Aid for Snakebite and Medical Treatment of Snakebite Course takes place on 11 May (venue to be announced). It will be followed by a Venomous Snake Handling Course in the afternoon. Please E-mail me (johan@africansnakebiteinstitute.com) for more particulars.

Dates for the next **Gauteng** and **Durban** courses to be announced. The dates will be placed on the website once I have them.

Kind regards,

Johan Marais

Author of *A Complete Guide to Snakes of Southern Africa*

African Snakebite Institute
E-Mail: johan@africansnakebiteinstitute.com
Tel. +27(0)824942039
Fax +27(0)86 525-2559
www.africansnakebiteinstitute.com
Skype Bugudada