

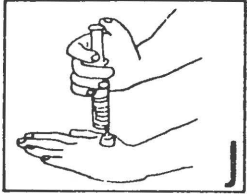
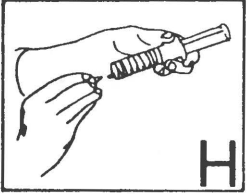
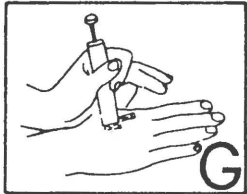
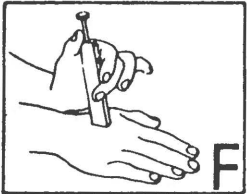
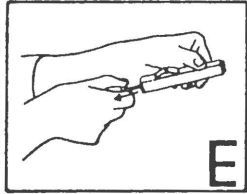
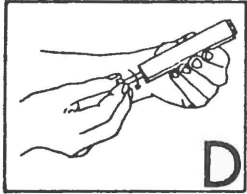
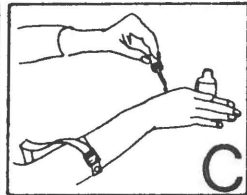
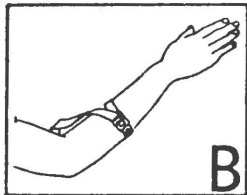
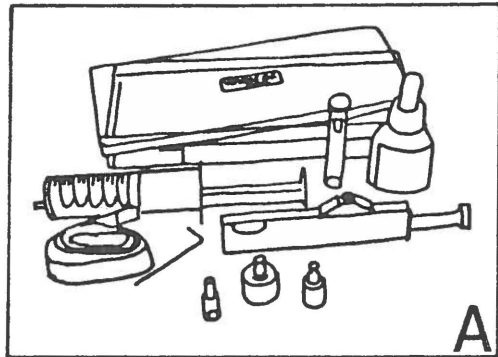
LITERATURE

This column will give information about new literature, publications, books, etc. Tips concerning new literature are welcome, and should be sent to: Jan Cor Jacobs, Tesselschadestraat 6, 3521 XV Utrecht, The Netherlands.

Erfahrungen in der Behandlung von Giftschlangenbissen mit einem neuen Rasterschiessapparat 'Venomex'; R. Jucker. Schweiz. Rundschau Med. (Praxis), Vol. 76 (26): 756-763.

The injection of a special serum is the most widely known treatment for bites of venomous snakes. This treatment however is not without drawbacks. Its success depends on the kind of antitoxin that is used. The major problem is that the composition and the quantity of venom do not only differ from species to species, but also within the species itself. Furthermore antitoxins have little or no influence on local symptoms; they only combat haemotoxic or neurotoxic symptoms. There is also the danger of undesirable side effects. For example, the patient can develop eczema because he is allergic to the serum used. Very often a specific serum is not available.

Over the last few years a new method of treating venomous snake bite has evolved. After the wound is artificially increased in size, the venom is sucked out of the wound. The apparatus, called Venom Ex, has a cutting head consisting of six parallel blades, each having a width of 5 mm and an adjustable length of up to 5 mm. The blades are spring-loaded when pulled back by means of a plunger. Before using the apparatus, a venous tourniquet should be applied to the limb above the wound to cause congestion, which facilitates the extraction of venom. The



cutting head of the Venom Ex apparatus is then pressed firmly onto the skin over the snakebite, with the retracted blades parallel to the long

axis of the limb. When the lever is pressed the blades are forcefully released and lacerate the skin. This procedure is repeated four or more times around the bite. Suction is then applied by means of a 20 ml syringe fitted with a suction cup and a spring, maintained for about 15 seconds, and intermittently repeated for 15 minutes. The tourniquet is then released. Venom Ex has a few important advantages. In cases where it has been used, there have been no major disturbances to blood coagulation or in the vegetative or central nervous system. Furthermore there was no necrosis.

However, there are a few disadvantages. The apparatus can only be used within the first few minutes following a bite. Because it is not possible to wait until local symptoms appear, Venom Ex can be used unnecessarily: it is possible that no poison was injected by the bite. Because Venom Ex damages the skin in several places, it increases the risk of infection. If the patient is treated carefully and a sterile bandage is used, this risk can be reduced to an acceptable level. Though the application of Venom Ex is not very painful, some courage is required when one has to use it upon oneself.

In the article 13 cases are described in which Venom Ex was applied successfully. The bites were from: *Agkistrodon bilineatus*, *Agkistrodon halys halys*, *Agkistrodon halys karaguana*, *Crotalus atrox* (2x), *Crotalus lepidus klauberi*, *Echis carinatus*, *Eristicophis macmahoni*, *Naja naja kaouthia*, *Sistrurus catenatus tergeminus*, *Sistrurus miliaris barbouri* (2x), *Vipera ammodytes*. Venom Ex is obtainable from A. Birchmeier, Bremgartenstrasse 81, 8967 Widen, Switzerland.

Evaluation of the Venom Ex apparatus in the treatment of Egyptian cobra envenomation, a study in rabbits; C.J. Reitz, D.J. Goosen, M.W. Odendaal, L. Visser, T.J. Marais. S.A. Medical Journal, Vol. 66 (28 July 1984): 135-137.

The Venom Ex cutting and suction apparatus for the initial treatment of snake bite was evaluated. Rabbits were injected with 6.25 mg radioactive Egyptian cobra venom and treatment with the Venom Ex followed. All 8 control animals died within 4 hours. Venom Ex treatment resulted in the recovery of 7 out of 8 rabbits. The treatment started 5 minutes after the rabbits were injected with the venom. The rabbits that were treated after half an hour all died. Four rabbits received four times the normal lethal dose and were treated after five minutes. Two of them recovered completely, the others died after 4.5 and 16.5 hours respectively.

With Venom Ex 1% to 39% of the venom could be removed. According to the authors one can not attribute the recovery of the rabbits entirely to the treatment with Venom Ex. The authors argue that it is not likely that Venom Ex will give positive results for all kind of snake bites. For example it is not suitable for the treatment of bites from puff adders: the fangs of the puff adder are more than one cm long and the maximum depth of the Venom Ex blades is only 5 mm, so that the removal of a significant amount of venom is unlikely incases of bites from the larger Bitis species.