

CASE REPORTS

FRESH FROZEN PLASMA IN THE TREATMENT OF HAEMOTOXIC SNAKE BITES

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Vipers inject mainly haemotoxins when they bite. This produces shock, capillary bleeding and coagulation changes. An early sign of viper bite poisoning is blood-stained spit, non-clotting blood and other haemorrhagic signs including oozing of blood from the injection site, bleeding from the gums and ecchymosis within half an hour to three hours of the bite. In severe cases, shock may develop¹.

The usual treatment is the administration of the appropriate anti-snake venom (ASV) intravenously after an intradermal injection of a test dose to test for sensitivity. Treatment is preceded by injection of an antihistamine such as 10 mg Chlorpheniramine intramuscularly and 200 mg Hydrocortisone intravenously. If clinical improvement is not apparent within an hour, repetition of the ASV is recommended¹. However, this can precipitate an anaphylactic reaction as illustrated by the following case:

A 15 year old boy was bitten on the leg by a viper snake (the parents brought the killed snake to casualty) three hours before attending casualty for treatment. His general condition was good but there was marked swelling of the leg which required surgical incisions, and oozing of blood from the site of the bite. His bleeding time was more than 15 minutes and the Prothrombin time was more than 60 seconds, control time being 14 seconds.

After the initial test dose, he was given 50 ml ASV in 150 ml Normal Saline intravenously over a period of 30 minutes and Vitamin K 10 mg intravenously immediately. Blood was still oozing from the site of the bite nine hours after initiating specific treatment. It was, therefore, decided to repeat the dose of the ASV. After about 30 ml of the 200 ml solution had been administered intravenously through a drip, the patient suddenly became very breathless and cyanosed, with tachycardia. His

blood pressure which was 100/60 mm Hg on admission rose to 150/90 mm Hg. Examination of the chest revealed high pitched expiratory rhonchi over both lungs.

Adrenaline was administered subcutaneously immediately and oxygen given as well. He recovered completely within 10 minutes. An hour later 250 ml Fresh Frozen Plasma (FFP) was administered intravenously over an hour and repeated after 2 hours. The bleeding stopped. Human antitetanus immunoglobulin and antibiotics were given and he made an uneventful recovery subsequently. Since then FFP has been used as part of the regime for the management of patients with haemotoxic snake bite with success, bleeding usually stopping within 6 hours of starting therapy in 3 more cases. Bleeding and Prothrombin times return to normal within this period.

DISCUSSION

Anti-snake venom neutralises the venom injected by the snake at the time of the bite. However by the time the patient arrives in hospital, the venom would have destroyed some of the coagulation factors thus causing impaired coagulation and there-

fore bleeding in haemotoxic snake bites. The administration of ASV neutralises the remaining circulating venom. While one dose of ASV may be enough for small to moderate amounts of injected venom, if large amounts of venom have been injected, bleeding may stop only when the destroyed coagulation factors have been replaced. This can readily be done by the transfusion of Fresh Frozen Plasma (FFP). FFP can easily be prepared in most blood banks in areas where snake bites are common for ready use in such situations, and is available at the Korle Bu Teaching Hospital.

REFERENCE

1. Reid, H. A. Snake Bite and Other Venomous Bites and Stings. Clinical Tropical Disease. 6th Ed. Blackwell Scientific Publications. London, 1978