Proprietary name:
SAIMR BOOMSLANG (TREE SNAKE) SNAKE BITE ANTISERUM
Descriptive name:
BOOMSLANG (TREE SNAKE) SNAKE BITE ANTISERUM (ANTIVENOM)
Registration number:
T515 (Act 101/1965)
Pharmacological classification :
A30.1 Antibodies
Scheduling Status :
S4
Composition:
Pepsin-refined immunoglobulins, prepared from the serum of horses that have been hyper-immunised with boomslang, *Dispholidus typus*, snake venom.
Contains ≤ 0,35 % v/v cresol as preservative.
Identification :
A light yellow to light brown clear liquid, with a slight odour of cresol.
Pharmacological action:
The antiserum neutralises boomslang (tree snake) venom. The venom has potent procoagulant activity by activating factors II (prothrombin) and X and possibly IX. A severe consumptive coagulopathy sets in several hours (1 – 24 hours) after the bite, with severe hypofibrinogenaemia and haemorrhage.
Indications:
A coagulopathy due to a boomslang *(Dispholidus typus)* bite. Following a bite one or more of the following may occur: persistent oozing of blood from fang punctures in the absence of bite site swelling; headaches, drowsiness, dizziness, fainting and convulsions; pain in the bitten limb; abdominal cramps. Bleeding, if it occurs, does so usually within 1-24 hours, and manifests as purpura, bleeding from old scratches and bleeding from mucous membranes. Disseminated intravascular coagulation may lead to multiple organ failure. "SAIMR BOOMSLANG (TREE SNAKE) SNAKE BITE ANTISERUM" is not effective against the venom of other haemotoxic snakes, e.g. twig or bird snake (*Thelotornis capensis*).
Contra-Indications:
Significant allergic disease, or a history of hypersensitivity to horse serum, is a relative contra-indication in the absence of adrenalin pre-medication. (See also under **Side effects and special precautions**)
Dosage and directions for use:
General management: Reassure the patient. Small amounts of water may be given. There are no specific first aid measures. Due to the relative long latency period of boomslang bite, there is usually adequate time to get the victim to a medical facility. In suspected boomslang bite, the following special investigations are recommended for diagnostic purposes: Full blood count, activated PTT, prothrombin time (or INR), fibrinogen, d-dimer and monomers. Abnormal coagulation parameters usually develop several hours before the onset of bleeding.

Specific treatment, antivenom administration: One to two ampoules (10 – 20ml) of antivenom, are indicated should there be evidence of bleeding, non clotting blood in a clean test tube after 20 minutes or significant laboratory evidence of a coagulopathy. (A whole blood clotting time is a useful bedside test, particularly in a rural area. Place a few millilitres of venous blood in a clean dry test tube and leave at room temperature for 20 minutes. Tip the tube on its side to see if a clot has formed. Normal clotting time ranges between 5 to 20 minutes. The blood will fail to clot in untreated boomslang envenomation.) Antivenom is administered intravenously, as a slow bolus injection or as an infusion diluted in 50 – 100ml of normal saline or 5% dextrose water over 5 – 10 minutes (the same dose is given regardless of patient size).Vigorous fluid replacement therapy may be necessary if antivenom is not immediately available.This includes the administration of electrolyte solutions and blood components(packed cells, plasma, cryoprecipitate, platelets) The use of heparin is not recommended. To ensure an absence of coagulopathy, patients should be closely observed for 24 hours.
Side effects and special precautions:
The injection of even highly purified serum carries a risk of allergic/hypersensitivity reactions. Acute anaphylaxis is non-dose related and characterized by cardiovascular collapse, laryngeal oedema and bronchospasm within 1 – 15 minutes (occasionally up to 6 hours) of administration. The risk of this type of reaction in a healthy individual is slight, but those with an allergic disposition, in particular a history of asthma or infantile eczema, or previous allergic reactions to horse serum, should not receive the antivenom unless it is absolutely necessary. Antivenom should be administered with extreme caution in these cases. Treatment of anaphylaxis includes the administration of adrenalin and support of vital functions. Depending on the severity of previous allergic reactions, some authorities advocate the prophylactic use of intramuscular adrenalin (1:1000 solution or 1 mg/ml) in a dose of 0,25 - 0,5 ml in adults and 0,1 ml in children. However, the potential risk of cardiovascular complications due to adrenaline administration should be taken into consideration. Serum sickness is dose related and may occur about five days to three weeks (usually 7-12 days) after injection. Serum sickness is characterized by urticaria, poly-arthritis or peri-articular oedema, mild fever and lymphadenopathy. Management includes the use of antihistamines and cortico-steroids. After administration of antivenom, the patient should be kept under observation for 6 hours, for signs of allergic reactions, and adrenalin kept in readiness for emergency use. It is important to note that premedication with antihistamines and cortico-steroids does not prevent an acute anaphylactic reaction, but may decrease the incidence or severity of allergic skin manifestations, such as urticaria. Skin or conjunctival testing for hypersensitivity by intradermal injection or drops of diluted venom, is not recommended since it is unreliable. It may, in itself, cause anaphylaxis.
Pregnancy and lactation:
Pregnancy and lactation are not contra-indications for antivenom use. Consider risk versus benefit.
Interactions:
No significant drug interactions are anticipated with the use of the antivenom.
Known symptoms of overdosage and particulars of treatment:
None. Treat symptomatically. See also under **Side effects and special precautions.**
Presentation:
Packed as individual 10 ml ampoules.
Storage directions:
Store at 2 °C to 8 °C. Do not freeze. When not under refrigeration, but at reasonably low temperatures, slight loss of potency may occur. The serum may be used if it has remained clear. Continuous exposure to higher temperatures will cause a marked loss in potency, accompanied by cloudiness, which makes the antivenom unsuitable for use.
Name and business address of applicant:
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