

AFRIVEN

Snake Venom Antiserum (African) I.H.S (Lyophilised)
(Polyvalent, Enzyme refined, Equine antivenom immunoglobulin fragments)

Description

Afriven (Lyophilised) is a sterile preparation contains equine immunoglobulin fragments F(ab')₂. Freeze dried powder is reconstituted with 10 ml of sterilised water for injections supplied along with the vial. Each mL has capacity of specifically neutralizing the venoms of following species of snakes.

- 20 LD₅₀ *Naja melanoleuca* venom
- 20 LD₅₀ *Naja nigricollis* venom
- 25 LD₅₀ *Naja haje* venom
- 25 LD₅₀ *Dendroaspis polylepis* venom
- 25 LD₅₀ *Dendroaspis viridis* venom
- 25 LD₅₀ *Dendroaspis jamesoni* venom
- 25 LD₅₀ *Bitis gabonica* venom
- 25 LD₅₀ *Bitis arietans* venom
- 25 LD₅₀ *Echis leucogaster* venom
- 25 LD₅₀ *Echis ocellatus* venom

Para specificity:

Bitis rhinoceros venom,
Bitis nasicornis venom,
Dendroaspis angusticeps venom,
Echis pyramidum venom,
Naja senegalensis venom,
Naja annulifera venom,
Naja nivea venom,
Naja pallida venom,
Naja mossambica venom,
Naja ashei venom

The equine immunoglobulin fragments F(ab')₂ and their derivatives are obtained from the serum of healthy equines immunized against venoms of the above species of snakes.

Pharmacodynamic/Pharmacokinetics
Not applicable.

Reconstitution of Lyophilised Serum

The antiserum is supplied in freeze dried form. The freeze dried powder is reconstituted with 10 ml of sterilised water for injections supplied with this pack. The whole content of freeze dried powder dissolves into a clear colorless or pale yellow liquid.

Administration and Dosage

Reconstituted serum is administered as soon as possible after the snake bite by intravenous injection. The recommended initial dose is 20 ml by intravenous infusion. The injection should be given very slowly as 5 minutes by direct slow intravenous route (or) one hour by Infusion, diluted in 250 ml of infusion solution (0.9% Sodium Chloride solution or 5% glucose solution). A second dose may be given after one or two hours if the symptoms still continue. Further doses are administered as required.

Contraindication

Injection of the Snake Venom Antiserum to persons with a history of allergic reactions to equine protein and to individuals with asthma, infantile eczema is contraindicated. Epinephrine and other supportive measures should be available in case of an anaphylactic reaction.

Interactions with other medicaments

Immunoglobulins may interfere with the ability of live vaccines to induce an immune response.

Pregnancy

Pregnancy is not a contraindication to the use of Snake venom antiserum unless it is clearly indicated.

Lactation

Breast feeding is not a contraindication to Snake venom antiserum unless it is clearly indicated. It is not known if the antivenom antibodies are excreted into breast milk.

First Aid for Snake Bite

Snake bite victims must be given quick and positive first aid.

The patient must be moved to a well ventilated and quiet place and confidence infused. The patient must be assured that there is no reason to get alarmed. Psychological shock of snake bite must be combated.

Site of bite should be cleaned with water without rubbing and dressed up with antiseptics taking care not to rub the part. Bitten part should be immobilized. Apply a broad and firm antiseptic dressing / bandage.

Death may result within minutes or several hours due to respiratory failure.

In case of haemotoxic (Bitis and Echis) poisoning no paralysis is observed. The poisoning is characterized by persistent pain and swelling with oozing of blood from the site of bite. This is followed by generalized vascular injury. Severe internal haemorrhage with tenderness and vomiting may occur. Death may result by intravascular clotting.

Only Snake Venom Antiserum can neutralize the venom in circulation. Hence the serum should be injected as early as possible.

Serum Reactions

Before treating the patient, it should be enquired whether any serum injection was administered earlier and whether the patient has a history of asthma, eczema or drug allergy. Serum sensitivity test may be carried out by injecting 0.1 ml of serum in 1:10 dilution subcutaneously and by observing for half an hour for any reactions either local or general.

In allergic patients Snake Venom Antiserum should be given with antihistamines.

Administration of serum in snake bite victims has to be decided based on taking into consideration the severity of the condition of the patient. Urgency of treatment must override the danger of anaphylaxis. In such cases 1ml of 1:1000 adrenaline may be given intramuscularly.

Delayed Reactions

Serum sickness like reactions after the administration of heterologous proteins may occur about six days after the beginning of treatment. They consist of an inflammatory reaction due to complement activation and formation of immune complexes (type III hypersensitivity reaction). Clinical symptoms are fever, pruritus, rash or urticaria, adenopathy and arthralgia. Serum sickness is treated by administering corticosteroids (eg. 1 mg/kg of methylprednisolone followed by diminishing dosage) and antihistamines.

Associated treatment

Sedatives and analgesics will relieve pain and nervousness in case of viper poisoning. Corticosteroids may be administered to minimize the serum and allergic reactions. Local sepsis may be prevented by antibiotic treatment. Normal saline or plasma infusions are recommended in near collapsing patients. In case of respiratory paralysis tracheotomy and positive pressure ventilation are additional measures.

Overdose and treatment

The dose is usually dependent on the severity of the envenomation. A symptomatic treatment should be given in case of overdose and supportive therapies are recommended.

Storage

Store the freeze dried vials below 30°C. Reconstituted liquid should not be stored for long nor should be allowed to freeze.

Presentation

Snake Venom Antiserum (African) is supplied as a freeze dried powder in a glass vial. Sterilised Water for injections is supplied in 10 ml container.



Manufactured by

VINS BIOPRODUCTS LIMITED

Survey No: 117, Thimmapur (V) - 509325,
Kothur (Mandal), Rangareddy (Dist),
Telangana, India, Ph: 040-23353540
E-mail: regulatory@vinsbio.in