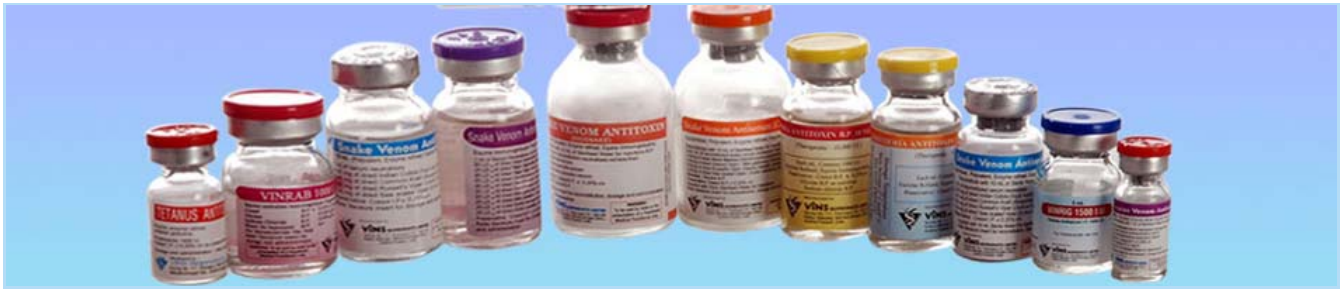

VINS - Snake Venom Antiserum I.P.

(Lyophilized, Polyvalent Enzyme, Refined Immunoglobulins)

Description

Snake Venom Antiserum is a sterile preparation containing equine immunoglobulin fragments F(ab')2. Freeze dried powder is reconstituted in 10ml of sterile water for injection I.P. supplied along with the vial. Each ml has power of specifically neutralising the venoms of following species of snakes.

1. 0.60 mg of dried Indian Cobra (Naja naja) venom
2. 0.45 mg of dried Common Krait (Bangarus caeruleus) venom
3. 0.60 mg of dried Russell's Viper (Vipera russelli) venom
4. 0.45 mg of dried Sawscaled Viper (Echis carinatus) venom

The antitoxic equine Immunoglobulins and their derivatives are obtained from the serum of healthy equines immunized against venoms of above species of snakes.

Reconstitution of Lyophilised Antivenom

The antivenom is supplied in liquid as well as in freeze dried form. The freeze dried powder is reconstituted with 10 ml of sterile water for injection IP supplied with this pack. The whole content of freeze dried powder dissolves into a clear colorless or pale yellow liquid.

Administration

Reconstituted antivenom/ liquid antivenom is administered as soon as possible if clear-cut signs/symptoms of envenomation are evident. It can be administered in two ways:

1. Intravenous injection: reconstituted or liquid antivenom is administered by slow intravenous injection (2ml/ minute).
2. Infusion: liquid or reconstituted antivenom is diluted in 5-10ml/kg body weight of isotonic saline or glucose.

All SVA is to be administered over 1 hour.

The patient should be closely monitored for 2 hours.

Local administration of antivenom in or around the bite site is ineffective, painful, and may raise the intracompartmental pressure, particularly in the digits. It is not recommended.

Snakebite Manifestations

In the case of bite by Cobra or Krait, there is creeping paralysis of muscles of eyelids, staggering gait, difficulty in speaking, blurred vision, and drooping of head, accompanied by nausea and vomiting. These symptoms are due to the predominance of neurotoxins. Death may result within minutes or several hours due to respiratory failure.

In the case of Russell's viper and Saw scaled viper, paralytic manifestations are uncommon (though they have occasionally been reported with Russell's viper). The usual manifestations comprise persistent pain and swelling of the bitten limb with oozing of blood from the bitesite. There may be blister formation and necrosis. This is followed by generalized vascular injury with severe external and internal haemorrhage. Vomiting may occur. Death usually results from cardiovascular shock or renal failure.

Antivenom Reactions

Anaphylaxis is life-threatening, but if the correct protocol is followed, it can be effectively treated and dealt with. Anaphylaxis can be of rapid onset, and can deteriorate into a life-threatening emergency very quickly. The patient should be monitored closely, and at the first sign of any of the following, antivenom should be discontinued, and 0.5mg of 1:1000 adrenaline must be administered intramuscularly: urticaria, itching, fever, chills or rigor, nausea, vomiting, diarrhoea, abdominal cramps, tachycardia, hypotension, bronchospasm, and angioedema. Children must be given 0.01mg/kg body weight of adrenaline I/M.

VINS Other Products

Snake venom antiserum I.P.

Snake venom antiserum (African)

Snake venom antiserum (C.Africa)

ASVS Echis Ocellatus (Monovalent)

ASVS Naja Kouthia (Monovalent)

ASVS Daboia Russelii (Monovalent)

VINRAB 1000 IU (Rabies Antiserum)

VINRIG 1500 IU (Rabies Antiserum)

Scorpion Venom Antiserum

Tetanus Antitoxin

Diphtheria Antitoxin 10000 IU

In addition, to provide longer term protection against anaphylactoid reaction, 100mg of hydrocortisone and 10mg of H1 antihistamine can be given I/V. The dose for children is 0.2mg/kg of antihistamine I/V and 2mg/kg of hydrocortisone I/V.

If after 10 to 15 minutes, the patient's condition has not improved, or if the condition is worsening, a second dose of 0.5 mg of adrenaline 1:1000 IM may be given. In the vast majority of cases, no more doses will be required. If there is hypotension or haemodynamic instability, I/V fluids should be given.

Once the patient has recovered, the antivenom can be restarted slowly for 10-15 minutes, keeping the patient under close observation. Then the normal drip rate can be resumed.

Serum sickness reactions sometimes occur. But these usually take a few days to a week, and can be easily treated with oral antihistamines and corticosteroids (for e.g., prednisolone - adults 5mg 6 hourly; child 0.7mg/kg/day)

Associated Treatment

Snakebite can cause moderate to severe pain at the bitesite. This normally responds well to paracetamol. Aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) should not be administered, as they can exacerbate bleeding. Mild opiates (such as tramadol 50 mg) can be administered for severe pain.

Neostigmine is an anticholinesterase drug, which prolongs the action of acetylcholine, thereby reversing respiratory failure and neurotoxic symptoms. It is particularly effective in post-synaptic neurotoxins such as those of the Cobra.

Recommended dose: 0.5mg intramuscularly, half hourly, together with 0.6mg of atropine IV over an 8 hour period by continuous infusion. If there is no improvement in symptoms after one hour, neostigmine therapy should be stopped.

Renal failure may require dialysis therapy.

Storage

Store the freeze dried preparation in a cool, dark place and avoid exposure to excessive heat. Reconstituted liquid should not be stored for long nor should be allowed to freeze. 10 ml liquid vials should be stored between 2ºC and 8ºC. DO NOT FREEZE.

Presentation

Snake venom antiserum I.P. is supplied as freeze dried powder in glass vials. Water for Injection is supplied in 10 ml vials.

The antivenom is also supplied as 10 ml liquid in glass vials.

Disposal

Left over antivenom and used empty vials should be discarded as biomedical waste.

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