Cobra Antivenin (Lyophilized)

Monovalent, Purified, Equine immunoglobulin.

Description

Cobra Antivenin is a sterile preparation containing equine immunoglobulin fragments F(ab')2. Freeze dried powder when reconstituted to 10mL of Sterilized Water for Injections B.P. supplied along with the vial, each 1mL has capacity of specifically neutralizing the venom of the following species of Snake.

- *Naja kaouthia* - 0.600 mg

The antitoxic equine immunoglobulin and their derivatives are obtained from the serum of healthy equines hyperimmunized against Monocle Cobra venom.

Reconstitution

The freeze dried powder is reconstituted with 10mL of Sterilized Water for Injections B.P. supplied with this pack. The whole content of freeze dried powder dissolves in to a clear, colorless or pale yellow liquid.

Administration

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

1. Intravenous injections: Reconstituted antivenin is administered by slow intravenous injection (1-2 mL/minute).
2. Infusion: Reconstituted antivenin is diluted in isotonic saline or glucose solution, 5-10 mL/Kg body weight.

At present there is no simple method to measure the amount of circulating venom in the body, therefore the antivenom dose cannot be accurately recommended. The dose also depends on the type of snake bite and severity of envenomation. In consideration to the requirement of venom neutralization fast, two vials are usually injected directly by I.V. route slowly .i.e.1-2 mL/minute (taking care of sensitivity reaction). Two more vials are given after half an hour to one hour, if the symptoms of envenomation persists. This way patient should be given doses (further dose can be given with Intravenous fluid) till the envenomation symptoms subside.

The patient should be closely monitored for 2 hours. Local administration of antivenin in or around the bite site is ineffective, painful, and may raise the intra compartmental pressure, particularly in the digits. Hence it is not recommended.

Snakebite Manifestations

In Cobra bite, 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 due to respiratory failure.

Antivenin 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, antivenin should be discontinued, and 0.5 mg of 1:1000 adrenaline must be administered intramuscularly: urticaria, itching, fever, chills or rigor, nausea, vomiting, diarrhea, abdominal cramps, tachycardia, hypotension, bronchospasm, and angioedema. Children must be given 0.01 mg/Kg of body weight adrenaline I.M.

In addition, to provide longer term protection against anaphylactoid reaction, 100 mg of hydrocortisone and 10 mg of H1 antihistamine can be given I.V. The dose for children is 0.2 mg/Kg of antihistamine I.V. and 2 mg/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 I.M. 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 antivenin 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 5 mg 6 hourly; child 0.7 mg/Kg/day).

Associated Treatment :

Snake bite can cause moderate to severe pain in at the bite site. 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, 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, there by 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 I.V. 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.

Presentation

Cobra Antivenin is supplied as freeze dried powder in glass vials. Sterilised Water for Injections B.P. is supplied in 10mL vials.

Disposal

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

Manufactured by:

VINS BIOPRODUCTS LIMITED
VINS RESEARCH WINS LIFE

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