Scorpion Venom Antiserum
(Lyophilised, Polyvalent, Enzyme refined Equine immunoglobulins)

Description
Polyvalent anti-scorpion venom serum is prepared from the purified plasma of healthy horses, which have been hyperimmunized against venom of the most dangerous scorpions mentioned below. The antivenin is purified by pepsin digestion, controlled heating and precipitation by caprylic acid followed by sterilization.

Composition:
Each 1 ml serum contains antibodies that neutralize the following venoms:
- Leiurus quinquestraitus 50LD_{50}
- Androctonus aeneus 35LD_{50}

Paraspecifically:
- Androctonus crassicauda
- Androctonus aeneus
- Androctonus australis
- Scorpiomurus palmatus
- Bathus occitanus
- Ortho-Cresol (preservative) 0.25%
- Protein 17%

Clinical Pharmacology:
Venom from a single scorpion may contain several neurotoxins such as histamine, serotonin and enzymes. The most important clinical effects of envenomation are neuromuscular, neuroautonomic or local tissue effects.

Grades of Clinical Picture Severyity:
- Grade 0: No Local or Systemic Signs.
- Grade I: Local Signs, pain, and/or parathesia at the site of sting.
- Grade II: Local Signs and pain + remote pain and/or parathesia.
- Grade III: Local pain + cranical, autonomic or somatic neuromuscular dysfunction.

Indications:
Treatment of envenmation from the stings of the scorpion species mentioned in composition.

Dosage and Administration:
The product is given by intramuscular, subcutaneous or intravenous injection. The dose is not related to the age or body weight. A skin test must be done before giving anti-scorpion venom serum (see under precautions).

NB:
In grades I, II and III, the dose may be repeated after 1-2 hours if improvement has not occurred. The dose should be increased if the interval between the sting and the treatment is prolonged or the site of the sting is on the head, neck or shoulders. Place ice on the sting site and immobilize the stung limb to reduce pain and venom extension.

Reconstitution of the Lyophilized Antiserum:
Remove the flip off on the seal over the diaphragms of the vials of antivenin and diluents. Sterilize the rubber diaphragm with alcohol. Withdraw the diluent in a sterile syringe. Insert the
needle through the stopper of the vial containing antiserum and point the diluent jet to the center of lyophilized pellet to be dissolved and in order to prevent floating. Swirl the vial gently for one to five minutes and do not shake to avoid foaming.

Adverse Effects:
Anaphylaxis to horse serum may occur in some rare cases with hypotension, dyspnea, urticaria and shock. Adrenaline injection (1:1000), antihistaminic and corticosteroids should be readily available. Serum sickness may occur 7-10 days after injection of the antitoxin serum including fever, vomiting, diarrhea, joint and muscle pains, lymphadenopathy, bronchospasm and urticaria. Nephritis, myocarditis, neuritis, polyarthritis and uveitis have been reported as rare complications of serum sickness. It is treated with antihistamines and corticosteroids

Contraindications:
Allergy to horse serum: Use with caution in allergic cases such as asthma or infantile eczema.

Precautions:
Intradermal skin test should be done before giving antiscorpion venom serum: Inject 0.1-0.2 ml of (1:10 dilution) antivenom intradermally. In case of past history of allergy (1:100) dilution should be used. Positive skin test is in the form of a sheal with or without surrounding erythema within 30 minutes. Some studies showed that using low dose of subcutaneous epinephrine of parallel infusion of hydrocortisone and antihistamine can reduce adverse reactions, which may occur with the antivenom. Safety of the product during pregnancy and lactation has not been established; therefore benefit of using the product should be outweighed against the harm. There are no reported drug interactions with the antiscorpion serum. The antivenom should not be used if turbid, expired or showing precipitation.

Shelf Life:
Five years from the date of manufacturing for the lyophilized form.

Storage:
The freeze dried vial and should be stored between 2-8°C. Reconstituted liquid should neither be stored for long nor be allowed to freeze. DO NOT FREEZE.

Presentation:
Scorpion Venom Antiserum Polyvalent is supplied as freeze dried powder in glass vials along with 1 ml sterile Water for Injection.

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