

SNAKES

Scientific Classification –

Kingdom	Animalia	FAMILY -	Atractaspidinae
Phylum	Chordata		Colubridae
Class	Reptilia		Elapidae - Cobras and Kraits
Order	Squamata		Viperidae - Russell's viper, Saw-scaled viper.
Suborder	Serpentes		Hydrophiidae - Sea snakes
Superfamily	Xenophidia		

Types of Snakes –

- Poisonous (Venomous) –
 - Neurotoxic – Cobra & Krait
 - Vasculotoxic / Haemotoxic – Vipers
 - Mayotoxic - Sea Snakes
- Non - Poisonous (Non Venomous)

BIG FOUR SNAKES OF INDIA –	
Common cobra	<i>Naja naja</i>
Common krait	<i>Bungarus caeruleus</i>
Russell's viper	<i>Vipera russelli</i>
Saw-scaled viper	<i>Echis carinata</i>

Types of Bites –

- Business – To kill or immobilize the victim (Amount of venom released - Large)
- Defense – To escape (Amount of venom released - Little)
- Dry – To produce fear/just had food (Amount of venom released – Nothing)

Snake Venom Fatal Dosage & Fatal Period –

Snake	Fatal Dose	Average fatal period
Common Cobra	12 mg	5-15 hrs
Russell's viper	15 mg	Up to 48 hrs
Common Krait	6 mg	5-15 hrs
Saw scaled viper	8 mg	Up to 48 hrs

Diagnosis of Snake Bite –

- History
- Fang marks
- Identification of snakes
- Clinical Signs & Symptoms
- Laboratory investigations

Management of Snake Bite –

- FIRST AID - Verbal Assurance, Immobilization of the affected limb, Keeping the patient at rest, Application of Tourniquet.
- SPECIFIC – Anti Snake Venom (ASV)

ASSESSMENT OF SEVERITY OF ENVENOMATION -

Degree of envenomation	Signs & Symptoms	Initial dose
No envenomation	Absence of local or systemic reactions; fang marks (+/-)	No ASV
Mild envenomation	Fang marks (+), moderate pain, minimal local edema (0–15 cm), erythema (+), ecchymosis (+/-), no systemic reactions.	5 vials (50 ml)
Moderate envenomation	Fang marks (+), severe pain, moderate local edema (15–30 cm), erythema and ecchymosis (+), systemic weakness, sweating, syncope, nausea, vomiting, anemia, or thrombocytopenia.	5–10 vials (50–100 ml)
Severe envenomation	Fang marks (+), severe pain, severe local edema (>30 cm), erythema and ecchymosis (+), hypotension, paresthesia, coma, pulmonary edema, respiratory failure.	10–20 vials (100–200 ml)

• SUPPORTIVE –

- Treatment for Anaphylactic reaction
- Inj. TT or ATS - 0.5 ml IM
- Broad spectrum Antibiotics
- IV Fluids – RL, DNS
- Surgical debridement & Skin Grafting.
- Signs of Neuroparalysis - Atropine – Neostigmin therapy
- Clotting Abnormality - Blood Transfusion (BT/FFP), In DIC - Heparin
- Hypovolemic shock – Volume expanders.
- Respiratory failure – Mechanical ventilation
- Acute renal failure – Dialysis