Management of Snakebite Envenomation in Victoria



This guideline applies to defined snake bites from venomous snakes found in Victoria (Brown, Tiger and Red-Bellied Black snakes)

Toxicity / Risk Assessment

Patients with no bite mark and/or no symptoms may be envenomed.

All SUSPECTED snake bite victims require admission for lab investigations/ neuro exam until a time point at least 12-hours post-bite.

Snakes causing human envenoming in Victoria: Tiger snake, Brown snake, Red-Bellied black snake.

Clinical features of envenoming:

- Patients may be envenomed, but remain asymptomatic
- Early collapse (Brown snake), cardiac arrest
- Non-specific: headache, nausea, vomiting, abdominal pain
- Neurotoxicity (typically a descending paralysis): ptosis, diplopia/
 ophthalmoplegia, respiratory or distal limb paralysis, seizures
- Coagulopathy: bleeding from bite site, venipuncture, gums, epistaxis, ICH
- a) Venom Induced Consumptive Coagulopathy (VICC): INR > 1.3,
 - ↓ fibrinogen, elevated d-dimer
- b) Anticoagulant coagulopathy (Black snake): raised APTT
- TMA (thrombotic microangiopathy): renal impairment, ↓ Hb, ↓ platelets
- Musculoskeletal: local pain (Black snake), rhabdomyolysis, myoglobinuria
 (can be delayed)

TREAT AS ENVENOMED IF:

- 1. Clinical evidence
 - Collapse
 - Loss of consciousness
 - Cardiac arrest
 - Seizure
- 2. Laboratory evidence
 - Coagulopathy
 - o INR >1.3
 - Persistent bleeding from venipuncture sites / wounds

POSSIBLE ENVENOMATION

(Discuss with a clinical toxicologist)

- Significant symptoms
 - Ongoing headache
 - Persistent vomiting
- Patient systemically unwell
- Any abnormality of:
 - o INR, APTT, fibrinogen
 - o D Dimer
 - o FBC
 - o CK

- RESUSCITATE
- Discuss with a clinical toxicologist
- Administer antivenom in a critical care area with monitoring and equipment to treat anaphylaxis
- Antivenom administration: dilute 1 vial of Tiger Snake AV and 1 vial of Brown Snake AV in 100-500 mL of sodium chloride 0.9% and infuse over 15-30 minutes
- Remove pressure bandage after AV has been administered
- Monitor and manage any complications (haemorrhage, renal failure, TMA)
- Repeat bloods (FBC, electrolytes, renal function, blood film, coagulation) 6+ 12 hours post AV
- Coagulopathy is unlikely to start to resolve within first 12 hours of bite
- Continued coagulopathy is not an indication for additional administration of antivenom

CRITERIA FOR DISCHARGE

VICC resolving AND any myotoxicity / neurotoxicity mild and resolving
 Warn patient of risk of serum sickness occurring 4-14 days post AV (fever, arthralgia, myalgia, rash)
 Serum sickness can be treated using 50 mg oral prednisolone daily for five days