

### **Snake Bite Neurotoxicity: Reversal After 84 hours**

A 5-year-old male child was referred to us with history of snake bite over naked right hand 4 days back, followed 2 hours later by inability to open eyes, feeble voice and weakness of four limbs. Parents had applied tourniquet and squeezed out 4-5 drops of blood from site immediately after bite and subsequently removed tourniquet 4 hours later. There was no history of bleeding from any site. For 3½ days witchcraft was tried and when it failed he was taken to a district hospital where he received 50 m/L of anti snake venom (ASV) and then referred to us 4 days (*i.e.*, 96 hrs) after the bite. On admission he was conscious, anxious, laboured breathing at rate 30/min, inadequate chest expansion (<1 cm), feeble voice, bilateral ptosis, poor gag reflex, lower motor neuron quadriparesis and neck flop. Chest examination was suggestive of pneumonia. The biochemical and hematological parameters were within normal limits. Patient received antibiotics for aspiration pneumonia, gavage feeding, supportive care and ASV 500 m/L over 48 hours. 132 hours after the bite and 36 hours after receiving treatment he started showing neurological improvement. Gradually he recovered completely and was discharged.

Neurotoxicity begins within 1-6 hours of snake bite; and respiratory failure is the primary cause of death. Delay in institution of ASV may allow the neurological symptoms to progress irreversibly(1, 2).

This case had received only 50 m/L of ASV three days after the bite at a district hospital before

reaching our institution. We administered 500 units of ASV over 48 hours along with supportive care. Such a long duration of survival without treatment and after frank development of neurotoxic features (84 hours) has not been reported earlier. Further, it is again rare for such long standing severe neurotoxic symptoms to be reversed with ASV which is reported to be most effective when administered 1-4 hours after envenomation(3).

Complete recovery with ASV in this case can be explained only by two possibilities, either the toxin was still in circulation or the ASV has neutralizing capacity for bound toxin too. Since controlled trials cannot be recommended, the former seems to be more likely. However, usage of ASV is not devoid of its own inherent risks although it is the only specific treatment available caution needs to be exercised while deciding for such therapy in an individual case.

**Rekha Harish,  
Sanjeev Kumar Digra,**  
*Department of Pediatrics,  
SMGS Hospital,  
Government Medical College,  
Jammu, India.*

#### **REFERENCES**

1. Holve S. Envenomation. In: Behrman RE, Kleigman RM, Jenson HB. Nelson textbook of pediatrics. 16th Ed. Philadelphia: WB Saunders Company; 2000, p. 2174-2178.
2. Agarwal PN, Aggarwal AN, Gupta D, Behera D, Prabhakar S, Jindal SK. Management of respiratory failure in severe neuromuscular snake envenomation. *Neurol India* 2001; 49: 25-28.
3. Russell FF. Snake bite venom poisoning in the United States. *Annu Rev Med* 1980; 31: pp 247-249.