

## Short Report

### Two sea snake bite cases admitted to Yangon General Hospital

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Epidemiological studies of sea snake bite cases [1] revealed that the bites occurred in Letkokekone, Kyaikkami and Daedaye/Pyapon / Bogalay. There were very few descriptive reports of sea snakebite. In this communication, we described clinical details and outcome of two sea snakebite cases admitted to Yangon General Hospital.

#### *Case 1*

A 21-year-old fisherman was bitten by a sea snake on dorsum of right hand while sorting out fishes at sea at 5 o'clock in the evening of 31 January 1999 ( Khatiya, Twantay Township). A slight pain was felt following the prick and the wound was incised and a tourniquet was applied at the forearm. Fang marks were present. Ache and pain, paresis and stiffness of the limb, arm and trunk muscles, pain on moving limbs, ascending weakness, inability to open mouth and feeling of increased sweating developed 1½ hours after the bite. He was referred to Yangon General Hospital 12 hours after the bite. His blood pressure (BP) was 160/90 mmHg, and heart rate (HR) 100 per minute. He developed rashes after receiving 4 ampoules of cobra anti-venom for which he was given i.v. 200 mg hydrocortisone, i.v. 40 mg frusimide, 0.5 ml subcutaneous adrenaline. Complete bilateral ptosis developed at 15 hours after the bite was not responsive to three doses of i.v. 0.5 mg of neostigmine repeated at 5 minutes and 1 ½ hours after the first dose. Reflexes (ankle, knee, biceps

and triceps) were reduced, all limbs were flaccid and he passed 700 mls of dark urine. He was incapable of lifting heel and head, unable to sit up unaided and trismus with failing vision were observed. His BP was 160/100 mmHg and HR 120/min. He had cardiopulmonary arrest 36 hours after the bite.

Results of investigations carried out on admission were: sodium 152 meq/L, potassium 3.8 meq/L, chloride 110 meq/L, urea 48 mg%, creatinine 107 µmol/L, glucose 7.6 mmol/L, haemoglobin 11.3 g%, total white cell counts 14500/dl, differential white cells, polymorph 82%, lymphocyte 9%, eosinophil 5% and monocyte 4%. ECG showed tall and persisted T waves 22 hours after the bite.

#### *Case 2*

A 56-year-old fisherman from Konewine, Twantay District was bitten by a sea snake while sorting out fishes under the light of an oil lamp at sea at right web space at 9 pm on 18 February 1999. It was a painless prick. An incision was made with a cut bottle and 2 tourniquets were applied at the arm. He complained of aching pain, inability to open mouth, heaviness and stiffness of the muscles, ascending weakness and pain on moving limbs 10 hours after the bite. On admission (24 hours after the bite), he complained of blurring of vision, drooping of upper eyelids, heaviness of all limbs, difficulty in swallowing and speech, sluggish voice and drowsiness. His BP was

150/100 mmHg, local swelling extended to the dorsum of right hand and weakness of muscle was detected in all limbs. Four ampoules of cobra antivenom were given. At 72 hours after the bite, his BP was 150/80 mm Hg and he was conscious, slightly drowsy with slurred speech with crepitation all over lung fields and passed 100 mls of dark urine. At 98 hours after the bite, he was conscious but drowsy with puffy face, no urine output, crepitation heard all over lung fields and had BP of 140/90 mmHg. He had cardiopulmonary arrest 100 hours after the bite.

Results of investigation carried out at 84 hours after the bite were: Sodium 147 meq/L, potassium 5 meq/L, chloride 105 meq/L, urea 10 mmol/L, glucose 4.8 mmol/L, serum creatinine 64  $\mu$ mol/L, serum bilirubin 20  $\mu$ mol/L, alkaline phosphatase 35 iu/L. Total WBC 12000/dl, differential white cells, neutrophil 80%, lymphocyte 14%, monocyte 4% and eosinophil 2%. Ninety-eight hours after the bite, ECG shows persistent inverted tall T waves.

According to Reid [2], 80% of all sea snakebites have trifle or no envenoming. Of the remaining 20% of cases, about 40% were fatal and with antivenom therapy, this number should fall to almost zero. In the present study, both victims died of renal failure secondary to myoglobulinuria. Specific antivenom is not available in Myanmar. Both were fishermen and bitten while sorting out fishes under insufficient

light. Local swelling of the victims was secondary to wound treatment and tourniquets. Usually it gives no local swelling [2]. Features of envenoming developed within one hour in one and 10 hours in another. In severe envenoming cases, these symptoms will develop in less than 2 hours [2]. Myoglobinuria is detected in 3-6 hours following envenoming [3] whereas in the present study it was detected at 12-13 hours after the bites. Hypertension developed in both cases. Hyperkalemia and moderate leucocytosis were observed. Cobra antivenom and anti-cholinesterase failed to reverse neurological symptoms. Secondary renal damage ( blockage of renal tubules with myoglobin ) leading to renal shut down was observed in both cases. In the absence of specific antivenom, the patients' lives could be saved by performing renal dialysis and assisted ventilatory support.

## REFERENCES

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