RECURRENT NEUROTOXIC ENVENOMING AFTER TREATMENT OF COBRA BITE

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Objectives: To characterize the recurrence of neurological symptoms and signs among cobra envenomation cases after initial treatment with specific antivenom.

Methods: We reviewed the records of cobra (Naja kaouthia) bite cases which were treated with antivenom from Ramathibodi Poison Center (RPC) Toxic Exposure Surveillance system during 2010 -2014. Only the cases with recurrence of neurological manifestations after antivenom treatment were analyzed.

Results:A total 238 cases of cobra envenomation were identified, but only 3 cases were diagnosed as recurrent neurological envenomation. These 3 patients had neurologic abnormality within 30 minutes to 2 hours after being bitten by cobra. All of them developed generalized muscle weakness, and required endotracheal intubation together with mechanical ventilation support. A dose (10 vials) of polyvalent antivenom for neurotoxin was administered intravenously in 2 patients, the other one received specific monovalent antivenom for cobra. Muscle weakness were recovered within 8-10 hours after that. However, they developed signs and symptoms of recurrence muscle weakness a few hours later. Two of them were performed the fasciotomy procedures before the recurrent neurological abnormalities. One case who had initial response to antivenom whose motor power of extremities clearly improved, however signs of systemic neurotoxic envenoming recurred without any surgical wound interventions. All of them recovered after the second dose of the antivenom therapy.

Conclusions: The recurrent neurological manifestations were not common. However, it was found after cobra envenomation. The antivenom administration might not protect the recurrent neurologic abnormalities. Surgical intervention at the wound site may the precipitating factor for this recurrence. If neurological abnormalities recur, re-treatment with antivenom should be considered.