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Unusual presentation of cobra bite

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Objective: To describe a case of cobra bite presented with atypical presentation which were similar to the clinical picture of krait envenomation.

Case report: A 41-year-old woman was brought to the emergency department with a history of acute shortness of breath after an unknown snakebite in Bangkok. She developed bilateral ptosis, speech and breathing difficulty followed by generalized weakness 30 minutes after the bite. On examination, her pulse rate was 99 beats/min, blood pressure (BP) 214/122 mmHg, respiratory rate 30 breaths/min with shallow breathing and pulse oximetry 93% on room air. She was conscious and obeying to verbal commands. Muscle power was grade 4/5 in all 4 limbs which deteriorated to 2/5 within 2 hours. There was a small puncture mark at her right foot without swelling, redness and warmth. She was finally intubated 1 hour after the bite due to respiratory failure. A provisional diagnosis of neurotoxic snake envenomation was made. Both cobra and krait venom produce muscular paralysis by blocking neuromuscular transmission. Cobra is the common neurotoxic snake in Bangkok. However, the envenomation was unusual for cobra bite because cobra venom contains cytotoxins which commonly produce moderate to severe local reaction. Krait envenomation could not be excluded as it usually causes no or very mild local reaction. Krait venom also blocks the release of acetylcholine which then decrease parasympathetic activity, resulting in high BP and tachycardia [1]. We decided to administer 10 vials of polyvalent antivenom which could treat both cobra and krait envenomation. The paralysis started to improve 3 hours after antivenom was given. She was extubated 15 hours after antivenom administration. Her BP returned to normal without antihypertensive drugs. She was discharged home 3 days after admission in good general condition with no residual paralysis. Her plasma sample collected on the hospital day 1 was positive for cobra venom. The patient reported that the offending snake was very small with the length of not more than 30 centimeters.

Conclusion: 1) Local reaction may not be obvious after cobra bite. 2) Systemic envenomation by a very small venomous snake can be as severe as being bitten by a large one. 3) Envenomation from snakes commonly found in the area is much more common.

Reference: [1] Laothong C, Sitprija V. Decreased parasympathetic activities in Malayan krait (*Bungarus candidus*) envenoming. *Toxicon*. 2001;39:1353–7.