



Venomous Bites From Leucistic Snakes

Chiu-Wai Wong^{1,2,3}, Ying-Hock Teng^{1,2,3,*}

¹Department of Emergency Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan

²Department of Emergency Medicine, School of Medicine, Chung Shan Medical University, Taichung, Taiwan

³Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan

Case Presentation

A 51-year-old man with a history of liver cirrhosis and type 2 diabetes mellitus presented to the emergency department with complaints of dizziness and lip numbness after his right hand was bitten by an unknown snake for half an hour (Fig. 1). He is an emergency medical technician and cleaned the base of the snake bucket in the morning.

Physical examination result was significant for diffusely enlarged, tender, dorsum of right-hand mass (Fig. 2). His initial vital signs were body temperature 36.3°C, pulse rate 99 beats/min, respiration rate 18 breaths/min, oxygen saturation 97%, blood pressure 228/107 mmHg, and Glasgow Coma Scale 15 points. Laboratory examination showed thrombocytopenia

with a white blood cell count of $6.4 \times 10^9/L$; segment, 61.6%. Hemoglobin was 16.1 g/dL and platelet count was $90 \times 10^9/L$. The other laboratory results showed abnormal liver function tests: alanine transaminase, 34 U/L; aspartate aminotransferase, 45 U/L; serum creatinine, 0.75 mg/dL, glucose, 215 mg/dL. Shortness of breath was seen around one hour later. Oxygen therapy was applied and there was no obvious response. His vital signs became unstable: pulse rate 126 beats/min, respiration rate 25 breaths/min, oxygen saturation 35%, blood pressure 157/83 mmHg. Hypoxia was detected. Therefore, endotracheal intubation was performed. A difficult airway was developed during the procedure. The coffee ground material was discovered after nasogastric tube insertion. Due to the critical condition, he was admitted to the intensive care unit. Thereafter,



Fig. 1. Swollen dorsum of the right hand.



Fig. 2. Leucistic krait.

Received: November 2, 2019; Revised: February 11, 2020; Accepted: April 8, 2020.

*Corresponding author: Ying-Hock Teng, MD, PhD, Department of Emergency Medicine, School of Medicine, Chung Shan Medical University, No. 110, Sec. 1, Jianguo N. Rd., South Dist., Taichung City 402, Taiwan. E-mail: cshy392@csh.org.tw

antivenin of *B. multicinctus* and *N. naja atra* was administered and he recovered successfully and was discharged five days later.

Discussion

Leucistic snakes are very rare. Many people are mistaken in their belief that they are non-venomous snakes. Leucistic snakes usually have few iridophores, xanthophores, and few or no melanophores.¹ However, they have pigmented eyes. In contrast, total albino snakes have red eyes with yellowish or pinkish visible patterns on their bodies.² Common krait, *Bungarus*, have hexagonal scales running along the vertebral line which is a key to identify one of the characteristics. In our case, the white body, lack of

body pattern except hexagonal scales in the midbody, and black eyes make it a true leucistic krait. Such unusual color morphs in *Bungarus caeruleus* have been reported from India. Highly suspicious of common krait bite with the antivenin and ventilator support in time may recover completely.

References

1. Bechtel HB. Inherited color defects. Comparison between humans and snakes. *Int J Dermatol* 1991;30:243-246. doi:10.1111/j.1365-4362.1991.tb04628.x
2. Martínez-Silvestre A, Soler J, Gener JM, García M, Martí C. Albinismo total de *Coronella girondica* en la Península Ibérica. *Bol Asoc Herpetol Esp* 2009;20:44-45. [In Spanish]