

Poster Abstracts

PO-43

A CASE OF RAPID RESPIRATORY FAILURE AND TRANSIENT HYPERTENSION AFTER BITE BY BUNGARUS MULTICINCTUS

Yu-Cheng Chang¹, Dong-Zong Hung²

¹ *Department of Emergency, China Medical University Hospital,* ² *Division of Toxicology, China Medical University Hospital*

Background: Envenomation by snake is common in Taiwan during summer time. There are six common species of venomous snakes in Taiwan, including three kinds of hemotoxic snakes, two kinds of neurotoxic snakes and one mixed type. *Bungarus multicinctus* (Taiwanese krait) is one of the neurotoxic snakes which may lead to respiratory failure and death due to its bungarotoxin. We describe the clinical presentation that a woman experience respiratory failure, transient hypertension and cranial nerve neuropathy after *Bungarus multicinctus* bite.

Case presentation: This 61 years old woman lives in the suburbs of Taichung, in the middle of Taiwan. In a summer morning, she went to a ditch for washing something. Then she felt right ring finger pain after bitten by a snake with black and white stripes. Although the pain subsided soon, she felt nausea, dizziness, numbness over her lip and unsteady gait after getting home ten minutes later. She was sent to our emergency department within one hour. Two vials of antivenom to neurotoxic snakes were given due to progressive symptoms to general paralysis, ptosis and diplopia. Respiratory distress developed about 1.5 hour after visiting ER. Endotracheal tube was inserted with mechanical ventilation. She was then admitted to intensive care unit. Another two vials of antivenom was given after 6 hours later and the second day of admission. Spontaneous breathing was noted on the second day. She felt whole body pain, diplopia, ptosis and weakness for the first five days, but she got improving gradually. Transient hypertension and diffuse T wave inversion were found in EKG monitor. No chest pain was told. Cardiac ultrasonography revealed diffuse hypokinesia. Hypertension was improved on the fourth day and she got extubated on the fifth day of admission. Rehabilitation program was arranged and she was discharged on day 14 and could walk by herself.

Conclusion: *Bungarus multicinctus* is one of the neurotoxic snakes in Taiwan. After antivenom use, the patients seldom experience respiratory failure in these years. We describe a case of respiratory failure after Taiwanese krait bites and found transient hypertension in this patient. The bungarotoxin may play a role in cardiovascular effect due to its reaction on acetylcholine acceptor in sympathetic and parasympathetic neuron.