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181. Once, Twice, Three Times a Bite Victim: Recidivism in Snake Envenomation

Spencer C Greene^{1,2}, Amber E Anderson², George Warpinski³, Sharan Campleman⁴, Anne-Michelle Ruha⁵, On Behalf of the ToxIC Snakebite Study Group

¹University of Houston Tilman J. Fertitta Family College of Medicine, Houston, TX, USA. ²HCA Houston Health-care - Kingwood, Kingwood, TX, USA. ³University of Texas - Southwestern, Dallas, TX, USA. ⁴American College of Medical Toxicology, Phoenix, AZ, USA. ⁵Banner University Medical Center - Phoenix, Phoenix, AZ, USA

Background: Most snakebites occur when the victim unknowingly enters the snake's vicinity, and most snake-bite patients will sustain only one bite in their lifetimes. However, there are certain occupations and behaviors that place people at risk for multiple lifetime snakebites. The purpose of this study was to describe the cases reported to the North American Snakebite Registry (NASBR) in which a patient being treated for a snake envenomation reported one or more previous bites.

Methods: This was a review of prospectively collected de-identified patient information reported to NASBR by medical toxicologists providing bedside care for snakebite patients between January 1, 2013 and December 31, 2023. Data regarding the circumstances of the snake encounter, patient demographics, previous snakebites, antivenom utilization, and clinical outcomes were reviewed.

Results: Of the 2,140 snakebites reported to NASBR during the study period, 94 (4.4%) involved patients with a history of one or more previous snakebites. The number of previous snakebites ranged from 1 – 10. Males accounted for 80 (85%) victims. The median patient age was 40 years (range: 7 – 84). Bites to the upper extremity occurred in 73 (78%) cases. Occupational exposures accounted for 14 (15%) bites. Sixty (64%) bites followed intentional interaction with the snake. In these cases, 54 (90%) victims were male. The median patient age was 26 years (range 7 – 78). Unsurprisingly, 57 (95%) bites were to the upper extremity. Alcohol was implicated in 14 (23%) cases, and captive snakes accounted for 18 (30%) bites. Most (17, 52%) of the unintentional bites were to the lower extremity. There were 25 (76%) male patients. Alcohol use was reported in 3 (9%) cases, and there were no bites from captive snakes. Antivenom was administered to 80 (85%) patients. CroFab®, the only antivenom approved by the Food and Drug Administration for North American crotalid envenomations for most of the study period, was administered to 54 (68%) patients. Anavip® was used in 17 (21%) cases. Three (4%) patients received both products. Acute adverse reactions were observed in 6 (7.5%) patients: 2 (3.7%) patients who received only CroFab®, 2 (12%) patients treated with Anavip®, and 2 (67%) patients to whom both products were administered.

Conclusion: Risk factors for sustaining multiple lifetime snakebites include intentional handling of the snake and male sex. Alcohol use was more common in patients who intentionally interacted with the snake. All bites from captive snakes resulted from intentional interaction with the snake.