

## **A Descriptive Study of Offending Species and Epidemiology of Snake Bites of Two Areas in the Dry Zone of Sri Lanka: Anuradhapura and Jaffna**

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Snake envenomation is a major health problem in dry zone of Sri Lanka. The aim of this research was to study the offending species and the epidemiology of snake bites in two areas in the dry zone of Sri Lanka; Anuradhapura in the central dry zone and Jaffna in the northern top end. This was a prospective, observational, hospital based study carried out at General Hospital Anuradhapura, from January to December 2010, and Teaching Hospital Jaffna, from February 2009 to January 2010. Epidemiological and clinical data were recorded from patients admitted with snake bites.

There were 304 and 1018 snake bites reported in Jaffna and Anuradhapura respectively. Of 189 (62%) identified bites in Jaffna, 99 (52%) were saw-scaled viper bites. Out of 398 (39%) identified bites in Anuradhapura, 209 (53%) were Russell's viper (*Daboia russelii*) bites and 88 (22%) Merrem's hump-nosed viper bites (*Hypnale hypnale*). Eight species of non-venomous snakes were identified from each area, and a majority of bites were caused by the flowery wolf snake (*Lycodon osmanhilli*) and by *Lycodon aulicus* in Anuradhapura. Monthly distribution of snake bites showed a similar pattern in both areas: 196 (64%) and 798 (78%) were envenomed in Jaffna and Anuradhapura, respectively. Similar monthly distribution of cases could be related to similar rainfall pattern in both areas. Nine deaths were reported from Anuradhapura and four from Jaffna.

The total number of snake bites reported in Anuradhapura was approximately thrice that of Jaffna. Majority of snake bites were saw-scaled viper bites in Jaffna, and Russell's viper in Anuradhapura. The number of Russell's viper bites reported from Anuradhapura was about five times that of Jaffna. There were no hump-nosed viper bites reported in Jaffna, whilst 88 were found in Anuradhapura. The proportion of envenomed snake bites was higher in Anuradhapura than Jaffna. There were more deaths due to snake bites in Anuradhapura than Jaffna.

In conclusion, differences were observed with regard to offending species of snakes and epidemiological parameters among snake bites victims in Anuradhapura and Jaffna.