

A study of snake bites in Galenbindunuwewa Divisional Secretariat Division, Sri Lanka

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Abstract

Snakebite is a major issue in rural areas of Sri Lanka, primarily affecting the farmers and laborers, while Anuradhapura is one of the highest risk prevailing districts. The issue is however, underestimated at present. Objective of this study was to determine the demographic characteristics of patients and to identify risk areas in Galenbindunuwewa Divisional Secretariat division in the district. Data on snakebites collected from Galenbindunuwewa and Huruluwewa hospitals, for the period of 2015, 2016 and up to October 2017 were used. A questionnaire survey was conducted using 82 affected people to identify the species of snakes and vulnerable land uses. A total of 635 cases were recorded including 389 from Galenbindunuwewa and 246 from Huruluwewa hospitals. All the recorded snake bite cases were used to identify demographic characteristics, while risk areas were identified using 276 recorded cases in 2016. The absolute locations of 276 individuals were determined using Garmin eTrex 10 GPS recorder. Kernel density estimation was used as an analytical tool to identify endangered areas. ArcGIS 10.1 and Microsoft Excel analytical tool were interactively used for data analysis. 387 males and 248 females had been admitted to Galenbinunuwewa and Huruluwewa hospitals during the study period. The age group 41-45 was highest affected group. Over 70% of the total affected individuals were of age between 16-60. Spatial distribution of the snakebite cases showed that the highest concentration was from Kokawewa, Yakkala, Ilukbadayagama and Ellawewa Grama Niladari divisions. The results of the questionnaire survey carried out in these areas revealed that 44% of people had been affected by *Hypnale hypnale* (Kunakatuwa), 24% by *Daboia russelii* (polaga), 12% by *Naja naja* (Naya), 7% by *Boiga trigonata* (Mapila), 6% by *Bungarus caeruleus* (Telkarawala) and 7% by other species. Above 85% of the people were affected by snake bites at homes, home gardens, paddy fields and chena indicating that, agricultural and residential activities have a relationship to snake bite occurrences. Therefore, an attention should be given to create awareness among the people on the impact of snake bites in these areas.

Keywords: Galenbindunuwewa DS and Hotspots of snakebites, Snakebites

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