

Oral Presentation - 24

## Community Incidence of Snakebite in Sri Lanka

**A. Pathmeswaran<sup>1</sup>, A. Kasturiratne<sup>1</sup>, N.K. Gunawardena<sup>2</sup>, B.A. Wijayawickrama<sup>4</sup>, S.F. Jayamanne<sup>3</sup>,  
G. Isbister<sup>4</sup>, A. Dawson<sup>4</sup>, H.J. de Silva<sup>3</sup>**

<sup>1</sup>Public Health, <sup>2</sup>Parasitology, <sup>3</sup>Medicine, Faculty of Medicine, University of Kelaniya, Ragama,  
Sri Lanka

<sup>4</sup>South Asian Clinical Toxicology Research Collaboration

### Abstract

---

**Objectives:** There are few studies on community incidence of snakebite. There are no national level data. We undertook a community-based country-wide survey on snakebite in Sri Lanka.

**Methods:** The survey was designed to sample 1% of the population of Sri Lanka. The sample was distributed equally among the 9 provinces as we wanted to have reasonably narrow confidence intervals for the incidence for each of the provinces. A Grama Niladhari (GN) division was defined as a cluster for data collection. 125 clusters were allocated to each province. Within each province the clusters were divided among the districts in proportion to their population. The clusters were selected using simple random sampling and in each cluster 40 households were sampled consecutively from a random starting point. Population based incidence rates of snakebite were then constructed.

**Results:** Sri Lanka has a total of 14,022 GN divisions, and 1,125 were surveyed. This included 43,827 households and a population of 164,746 (0.81% of country's population). 694 snakebites and 317 significant envenomings (local tissue necrosis and systemic envenoming) were reported within the past 12 months. The crude overall community incidence of snakebites and significant envenoming were 421 and 192 per 100,000 population, respectively. There was wide variation within districts, the worst affected being Mullaitivu, Anuradhapura, Batticaloa, and Polonnaruwa, all in the dry zone mainly agricultural areas of the country.

**Conclusions:** Sri Lanka has a high community incidence of snakebite and envenoming, with a marked geographical variation within the country. This variation underlines both the inaccuracy of extrapolating data of localized surveys to national or regional levels and the need to prioritize distribution of resources for treatment of snakebite even in small countries.