Paediatric venomous bites in rural Sri Lanka

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Objectives: Snake bite is a common health problem in Sri Lanka which increases morbidity and mortality rate, especially in rural areas of the country. Snakebite among children is a life-threatening accident compared to adults, as it is more dangerous because of the high ratio of envenomation to body mass. The objective of the current study calculated the age-adjusted incidence of paediatric venomous bites in Sri Lanka and to understand the patterns of paediatric envenomation in North Western Province in Sri Lanka.

Methods: A subset of epidemiological data was obtained from January to December in 2011, from a randomized controlled trial (SLCTR/2010/008) conducted in 45 hospitals in Kurunegala district. The aim of our study is to calculate the incidence of paediatric venomous bites in rural Sri Lanka and evaluate the demographic data, clinical features, management and outcome of snakebite envenomation in pediatric population, North Western Province in Sri Lanka.

Results: Total number of 330 patients were admitted during the study period. The annual age-adjusted incidence of paediatric venomous bites in the study area was 94.5 per 100,000. The highest numbers of bites (52.7%) were in the range of ages 7-12 years and male patients (52.4%) were prominent among the hospital presentations. Of all snake bite admissions, most of the biting creatures were unidentified (n=215, 65.2%). Among those identified, hump nose viper bites were predominant (n=66, 20.0%) followed by insects (n=24, 7.3%). Hospital presentations were rare due to Cobra (n=2, 0.6%), common krait (n=2, 0.6%), Russell's viper (n=4, 1.2%). The maximum number of paediatric admissions due to venomous bites was reported in June (n=38, 11.5%) and August (n=37, 11.2%) while the minimum number of hospital presentations were reported on February (4.5%). The site of the bite was only recorded in 192 cases and the most prominent site of the bite was the lower limb (n=139, 72.4%). Of all admissions, 188 (56.9%) were discharged while 54 (16.4%) were transferred. Eighty-four patients were self-discharged from the hospitals and the outcome was not recorded in the patient’s records. No deaths were reported during the study period.

Conclusion: Incidence of paediatric venomous bites was 94.5 per 100,000. Among the identified venomous bites, hump-nosed pit viper (Hypnale hypnale) accounted for the highest number of venomous bites. Lower limb was the most common bitten site and most of the patients were discharged. Children and their families should be specifically targeted for snakebite prevention educational initiatives.