

## A STUDY ON CARDIOTOXIN OF SRI LANKAN COBRA

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Sri Lanka has the highest fatality rate of snakebites in the world. The cobra (*Naja naja naja*) is one the most dangerous species in the Indian subcontinent. Anti venom serum (AVS) is the only effective therapy available for treatment of snake bite. Anaphylaxis can be fatal unless emergency treatment is given. At this juncture, it is worthwhile to investigate the composition of the toxins of Sri Lankan cobra and find out their homogeneity to Indian species.

In this study, venom was collected from captured cobras reared at the reptile facility in the Faculty of Medicine, University of Peradeniya. Crude venom was purified by chromatographic methods and the purified product was subjected to protein sequencing. The cardiotoxin of Sri Lankan cobra which is responsible for tissue reactions and haematological changes after envenomation was analysed. In order to clarify the structural relationship among them, amino acid sequence of cardiotoxins determined in this study were compared with those of cardiotoxins already reported in other cobra species.

The amino acid sequences of the cardiotoxin, present in the Sri Lankan cobra is different from other Asian cobras. It is much closer to *Naja naja oxiana*. This study supports the view that there are genetical differences between the Sri Lankan and Indian cobra species. It is beneficial to analyse the major toxins of our endogenous snakes and produce antivenom specific to our species in Sri Lanka, thereby helping to reduce the high fatality due to snakebite.