Risk for musculoskeletal disorders following snake envenoming

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Introduction: The late effects of snake envenoming on the locomotor system of human beings were not systematically studied.

Objective: To evaluate the relative risk for musculoskeletal disorders following snake envenoming.

Method: The study design was a retrospective cohort study. 80 snake bite victims who have documented evidence for snake envenoming by highly venomous snakes were recruited as the exposed group and age, sex and occupation matched healthy individuals were recruited as non exposed group. Comprehensive physical examination was done on the study subjects of both groups at the end of 4 months and 7 months of the incident of snake envenoming to identify disorders occurring in the locomotor system.

Result: Among 80 snake bite victims who were bitten by highly venomous snakes, 4 victims were identified with musculoskeletal disorders at the end of 4 months of the incident and those disorders persisted for over 7 months. None were identified with musculoskeletal disorders in the non exposed group. From snake bite victims four people (5%) complained pain and swelling over the bitten site. Two (2.5%) have had chronic non healing wounds and 3 (3.75%) had stiff ankle joint and balance impairments. Three (3.75%) had lost muscle mass over the lower limb and foot. Three (3.75%) had demonstrated gait abnormalities. There is a positive association (Relative Risk >1) among snake bite victims for musculoskeletal disorders.

Conclusion: Appropriate physical therapy strategies have to be implemented on snake bite victims to prevent long term physical disabilities following snake bite.

Biography
S Jayawardene has completed her Diploma in Physiotherapy from the School of Physiotherapy at the National Hospital, Colombo in 1995 and first degree in Bachelor of Science from the University of Kelaniya, Sri Lanka in 2001. She has worked as a senior Physiotherapist at the Department of Physiotherapy, General Hospital, Chilaw, Sri Lanka for 11 years. Since 2009, she has been working as a Lecturer in Physiotherapy at the University of Colombo, Sri Lanka. In 2013, she has started her Post-graduate studies (PhD) to assess disabilities following snake envenoming. She was awarded as the best scientific poster presentation at Singapore Physiotherapy Association Conference in 2014 and scholarship travel grant from the Asia Pacific Association of Medical Toxicology to present an abstract in China in 2014.

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