

SURGE OF SNAKE BITE IN BANGLADESH

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Snake bites are a significant and overlooked health issue in Bangladesh. In 2009, the incidence density of snake bites was reported to be 623.4 per 100,000 person-years.¹ A 2016 survey estimated that 15,372 individuals were bitten by snakes, with 1709 of them succumbing to the bites each year.² Bangladesh is home to about 82 snake species, including 12 species of sea snakes, of which 28 are venomous.³ Some occupations in Bangladesh, such as those of farmers, honey seekers in the Sunderbans, tea garden workers, fishermen in coastal regions, and snake charmers, are considered high risk for snake bites.

A study showed that 25% of fishermen had been bitten by snakes in the last five years.⁴ The most commonly identified venomous snakes in Bangladesh include green pit vipers (*Cryptelytrops erythrorus* and other species), cobras (*Naja* species), and kraits (*Bungarus*). Neurotoxic envenoming by kraits and cobras accounts for the majority of snakebite-related fatalities in Bangladesh.⁵

Recently, a new phenomenon in snake bites has been observed. The Russell's viper (*Daboia russelii*), also known as Chandra bora in Bangladesh, was declared extinct in Bangladesh in 2002. In 2013, there was a sudden increase in snakebite cases, particularly from Russell's vipers, many of which proved to be fatal. Most of the victims were farmers working in their fields. Scientists believe that the snakes, which typically occupy dry areas, have adapted to various climate conditions and have spread to over 25 districts in Bangladesh.^{6,7,8} Bangladesh is prone to natural disasters due to its geographic location and meteorological conditions, leading to an increase in snakebite incidents as well.

It's unclear how prepared we are to deal with this situation. Although we have a snakebite

treatment protocol,³ the training for field-level and tertiary physicians is limited, and anti-venom availability is also scarce in Bangladesh. Awareness about snakebites and protection measures is also lacking.⁹

The World Health Organization recommends several measures to combat snakebites, such as conducting population studies to understand the true incidence, mortality, and long-term effects of snakebites, collaborating with the Department of Forestry to study the distribution of venomous snake species, implementing improved first aid methods like pressure-pad/immobilization techniques, and exploring early use of antivenom by specially trained health workers.¹⁰ In Bangladesh, there is a social taboo where most people seek local owazas for treatment, causing unnecessary delays in receiving proper care.

We need to go back to the very beginning, starting from the planning stage to involving the entire community. In recent news, Incepta Pharmaceuticals has been granted permission to produce anti-venom.¹¹ However, we strongly believe that this is insufficient. It is imperative that more companies are given permission to produce anti-venom to meet the growing demand. So we have to restart from the very beginning, that is from the planning level to the community. Recently, Incepta Pharmaceuticals got permission for the production of anti-venom. We think it is still inadequate. More companies should have permission.

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