

**Analysis of Snakebite Data from Pappinisseri Vishachikilsa Society,  
Kannur, Kerala (India)**

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**Summary**

Snakebite is a significant medical issue in India, and several factors influence the region-wise incidence. This paper analyzes and reports mortality and incidence figures from one medical center in Kannur district, Kerala. The gender profile of snakebite patients showed that adult males are in the highest risk group (64% of snakebite cases with envenoming), while young women and female children are in the low risk group (3.5% of snakebite cases with envenoming). Snakebite seasonality was also observed in the data, the highest incidence coinciding with the start of the paddy (rice) planting season. Based on these observations, the authors have made some recommendations on the prevention and management of snakebite.

**Introduction**

The most quoted figure for snakebite mortality in India comes from a reference by Swaroop and Grab [1], who estimated about 20,000 snakebite deaths per year (probably based on Joseph Fayrer's 1874 estimate [2]). The most recent nationwide study (carried out by sampling) extrapolated a mortality of about 10,000 per year [3] (Sawai and Homma, 1974). This study also estimated that around 90% of the persons bitten never came to hospital, preferring to rely on local remedies.

The vast majority of snakebite deaths in India have been attributed to the four common, medically important species of snakes known as the Big Four. Though their ranges overlap, each has unique microhabitat and prey preferences. The Russell's viper (*Daboia russellii*) is nocturnal, lives in rocky areas with dense thickets (like agave and pandanus) interspersed with small open spaces, and feeds largely on gerbils (*Tatera indica*). The Saw-scaled Viper (*Echis carinatus*) is nocturnal and prefers areas with large, open and sandy clearings, where it can be found on or just above the ground, often under rocks or on thorny bushes where it preys on mice, lizards and arthropods. The Spectacled Cobra (*Naja naja*) is active both by day and night, favours bushy spaces bordering agricultural land, and typically lives in rat holes and termite mounds in bunds bordering rice fields. It feeds on mice, rats, frogs and toads. The Common Krait (*Bungarus caeruleus*) is nocturnal, lives in holes and is partial to human-made habitats, such as stacks of tiles, granite rocks, or wood. These are good places for it to find mice, lizards and other snakes to eat. This microhabitat preference leads to a large percentage

