

EPIDEMIOLOGICAL PROFILE OF BEE STING ACCIDENTS IN ESPÍRITO SANTO FROM 2020 TO 2024

Victor Ribeiro Cantudo de Souza¹; Mariana Masse Monteiro¹; Paloma Cabral Conceição¹; Nixon Souza Sesse¹; Joanina Bicalho Valli¹; Rinara Angélica Andrade Machado¹

1. Centro de Informação e Assistência Toxicológica do Espírito Santo - CIATox-ES

INTRODUCTION: In Latin America, bees represent a relevant group for public health due to both the high frequency of accidents and the clinical severity of the cases. In Espírito Santo (ES), in 2023, bee stings were the fifth leading cause of accidents involving venomous animals and the main cause of death directly associated with such events. The clinical condition varies depending on the sting site, the number of stings, and the individual's immune response. **OBJECTIVE:** To describe the epidemiological profile of bee sting accidents in the state of Espírito Santo between 2020 and 2024. **MATERIALS AND METHODS:** This is an ecological and descriptive study using data from the official health information system of ES, e-SUS Health Surveillance – "e-SUS VS", covering the years 2020 to 2024. The variables analyzed were: age group, sex, causal relationship, severity, and clinical outcome. All cases reported in the state during the study period were included, excluding incomplete records or those lacking the selected variables. **RESULTS AND CONCLUSION:** A total of 2,046 bee sting accidents were recorded in ES between 2020 and 2024, representing 5.65% of all venomous animal accident reports. Among them, 43.74% (895) received medical care within one hour; 67.01% (1,371) occurred in men; 21.79% (446) were work-related; and 58.5% (1,197) involved individuals aged 20 to 59 years. Regarding deaths, 87.5% (7) occurred in men over 60 years old, with 50% (4) of these deaths happening in 2022, resulting in a case fatality rate of 1.14%. Most cases were mild (90.32%; 1,848), followed by moderate (7.82%; 160) and severe (1.66%; 34). There was an 87.5% increase in cases between 2020 (328) and 2024 (615). The months from January to March (28.45%; 582), September (9.68%; 198), and October (10.90%; 223) accounted for 49.02% of notifications. Despite the low incidence, there was an annual increase, reinforcing the need for prevention strategies, especially among the elderly, and further studies to support and guide health actions.

KEYWORDS: Bee Venoms; Epidemiology; Insect Bites and Sting; Health Information Systems;