

AN EPIDEMIOLOGICAL ANALYSIS OF MORTALITY DUE TO NEOPLASMS OF MALE GENITAL ORGANS IN THE REGIONS OF BRAZIL BETWEEN 2014 AND 2023

Anna Lais Fernandes Almeida¹, Ana Clara Gonçalves Faro¹, Gustavo Cezar Corrêa de Lima¹, Ian Gonçalves da Veiga¹, Juliana Mayumi Nakashima Kimura¹, Lorena de Souza Pinto¹, Mylena Gemaque Vieira¹, Rodolfo Augusto de Almeida Júnior¹, Sofia de Alvarenga Teixeira¹, Déborah Wanzeler Garcia Castanheira²

¹Medicine at the State University of Pará (UEPA)

²Medicine at the Federal University of Pará (UFPA)

Introduction: The incidence of penile cancer in Brazil reflects an intersection of socioeconomic, clinical, and behavioral factors (Korks et al., 2020). This malignant condition can be fatal and deeply affect male self-esteem, thereby compromising quality of life (Silva et al., 2023). **Objectives:** To conduct an epidemiological analysis of the patient profile mainly affected by malignant penile neoplasms across each Brazilian region and to compare the prevalence of the disease among them from 2014 to 2023. **Methods:** This is an ecological, cross-sectional, retrospective, and descriptive study. Data on deaths caused by malignant penile cancer in Brazil between 2014 and 2023 were extracted from the Mortality Information System (SIM)/ Data Processing Department of the Unified Health System (DATASUS). Variables analyzed included geographic region, race, age group, educational level and marital status. Data tabulation was performed using Microsoft Excel 2019. **Results:** Between 2014 and 2023, a total of 4,502 deaths were reported due to malignant penile cancer in Brazil. The regional distribution was as follows: 465 in the North, 1,534 in the Northeast, 1,512 in the Southeast, 623 in the South, and 368 in the Central-West. Across all regions, most victims were married (43.31%), over 60 years old (61.06%), and had not completed elementary school (67.17%). The only significant regional difference was related to race: in the North, Northeast, and Central-West, 64.72% of the deceased were identified as mixed-race (“pardo”), whereas in the South and Southeast, 66.41% were white. Among the total deaths from malignant neoplasms in each Brazilian region, the North region has the highest mortality rate from malignant neoplasms of the penis (representing 0.4% of the total deaths from malignant neoplasms), compared with the Northeast (0.3%), Southeast (0.14%), South (0.14%) and Central-West (0.2%). These findings suggest a strong link between malignant penile neoplasm and poor socioeconomic conditions and low educational attainment (Vieira, 2020), seeing that most of the patients affected by this pathology had not completed elementary school. The disease is five times more prevalent in the North and Northeast (Silva et al., 2023), where higher mortality is closely tied to the deep-rooted social inequalities existing in these places. Contributing factors likely include

disease-related stigma, delays in seeking care, and limited awareness about diagnosis and treatment options, which results in a higher incidence of this cancer and a greater number of hospitalizations. (Korkes et al., 2020). **Conclusion:** Mortality from malignant neoplasms of male genital organs is most prevalent in Brazil's North and Northeast regions, primarily affecting men over 60 years old with limited education. A clear association exists between penile cancer and low socioeconomic indicators. Therefore, further research is essential to support public health strategies focused on surveillance, treatment evaluation, and effective prevention.

Keywords: Penile Neoplasm; mortality registries; epidemiology.