

EPIDEMIOLOGICAL AND THERAPEUTIC PROFILE OF TESTICULAR CANCER IN BRAZIL BETWEEN 2021 AND 2025

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Introduction: Testicular cancer represents 1% of male tumors, predominantly affecting young men between 15 and 40 years old. Most testicular tumors are malignant germ cell tumors, which arise from disturbances in embryonic testicular development, sometimes caused by environmental factors. The diagnosis of this cancer usually occurs as a unilateral testicular mass detected by the patient or accidentally identified during an ultrasound. Testicular cancer has high cure rates, even in cases with metastasis, however, between 2021 and 2023 there was an increase in mortality rates, rising from 0.4% to 0.6% of cases, which represents a failure in either the diagnosis or treatment of this disease. **Objectives:** This study aims to analyze the epidemiological and therapeutic profile of testicular cancer in Brazil between 2021 and 2025. **Methods:** This is a retrospective, observational, and descriptive study, quantitative in nature, based on secondary data extracted from DATASUS. Cases of testicular cancer from 2021 to 2025 were analyzed, with the following variables considered: age group, regional distribution, year of diagnosis, and therapeutic management. Data were tabulated in Microsoft Excel spreadsheets. **Results:** A total of 7,718 cases of testicular cancer were registered between 2021 and 2025 in Brazil. A significant concentration was observed in the South and Southeast regions, with incidences of 0.016 and 0.008, respectively. Regarding the year of diagnosis, there was a consistency in diagnoses between 2021, 2022, and 2023 with 24.65%, 26.61%, and 26.85% of cases, respectively, followed by a decline in 2024 with 21.74%. The year 2025 does not yet have complete data, presenting only 0.12% of cases. The predominance in young men was confirmed, with approximately 60% of cases occurring between 20-39 years old, with the most prevalent age group being 25 to 29 years (18.47%). Regarding therapeutic management, among cases with available treatment information, surgical treatment remains the primary procedure, with a total of 4,313 surgeries (55.88%) during these years, followed by chemotherapy at 33.77%. However, in the North region, there was a prevalence of chemotherapy treatment over surgical management (64.46%). **Conclusion:** Testicular cancer in Brazil presents a

concerning epidemiological profile, with a predominance in young men. The unequal regional distribution suggests disparities in access to diagnosis and notification failures, hindering early detection and leading to underreporting of cases. Furthermore, the high number of cases lacking treatment information and the disparity of the northern region between the other regions supports this hypothesis. Therefore, integrated strategies are necessary, including: expanding access to specialized services in all regions, training primary care professionals, and strengthening cancer registries. These measures are essential to reverse the trend of increasing mortality and ensure that the high potential cure rates are effectively achieved throughout the Brazilian population.

Keywords: testicular cancer; epidemiology; therapeutic management.