

EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH MALIGNANT COLON NEOPLASIA DIAGNOSED BEFORE THE AGE OF 50: RETROSPECTIVE ANALYSIS IN THE NORTH REGION BETWEEN 2015 AND 2024

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Introduction: Colon cancer has traditionally affected those over 50, but recent years show a rise among younger adults. This trend is concerning due to the lack of screening and likely delayed diagnoses. In patients under 50, tumors often display distinct and sometimes more aggressive features. In Brazil's North Region, where access to specialized care is limited, investigating these cases is essential to understand their profile and support local epidemiological planning and public health strategies for early detection and better oncological outcomes. **Objectives:** To describe the epidemiological profile of patients diagnosed with malignant neoplasms of the colon before the age of 50 in the North Region of Brazil, in the period from 2015 to 2024. **Methods:** The research used data from the Hospital Information System (SIH/SUS) of the Unified Health System (SUS) to analyze hospitalization patterns of colon cancer in Brazilian people under 50 years old within the North Region from 2015 to 2024. The research examined five variables which included sex, age group, race/ethnicity, hospitalization by state and mortality. The research included all federal units in the North Region while data were organized by state and age ranges from under 1 year to 49 years and by sex and self-reported race/ethnicity categories (mixed-race, White, Black, Asian, Indigenous, and unknown). The study evaluated mortality statistics while focusing on death rate variations across different states. **Results:** Between 2015 and 2024, a total of 2,993 hospitalizations for malignant neoplasm of the colon were recorded in Brazil's North Region, covering all federal units in the area. Tocantins had the highest absolute number of hospitalizations (846 cases; 28.26%), followed by Rondônia with 833 (27.83%) and Pará with 614 (20.51%). Amapá recorded the lowest number, totaling 49 cases (1.64%). The distribution by age group showed a predominance of hospitalizations among adults aged 40 to 49 years, with 1,712 cases (57.20%), followed by those aged 30 to 39 years (784; 26.20%), 20 to 29 years (356; 11.89%), 15 to 19 years (60; 2.00%), 10 to 14 years (36; 1.20%), 5 to 9 years (12; 0.40%), 1 to 4 years (8; 0.27%), and children under 1 year (25; 0.84%). Regarding sex, a higher prevalence of hospitalizations was observed among women (1,689 cases; 56.43%) compared to men (1,304 cases; 43.57%). In terms of race/ethnicity, most patients self-identified as mixed-race (2,264 cases; 75.65%),

followed by White (298; 9.96%), unknown (297; 9.92%), Asian (84; 2.81%), Black (39; 1.30%), and Indigenous (11; 0.37%). The state of Pará showed a mortality rate of 14.33%, higher than the average observed in the North Region (8.69%). During the analyzed period, Pará accounted for 88 deaths, representing 33.85% of the 260 deaths recorded in the region. **Conclusion:** This analysis of hospitalizations due to malignant neoplasm of the colon in Brazil's North Region highlights notable disparities across states, age groups, sex, and race/ethnicity. By emphasizing these differences and the elevated mortality rate observed in Pará, the study provides critical insights to inform public health policy planning and to optimize the allocation of resources for regional oncologic care.

Keywords: Epidemiological profile; colon cancer; north region.