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The Cancer Control Challenge:
Better Understanding It to Better Face It

LIVER AND INTRAHEPATIC BILIARY TRACT CANCER: EPIDEMIOLOGICAL COMPARISON AMONG BRAZILIAN REGIONS

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Introduction: Liver and intrahepatic biliary tract cancer primarily includes hepatocellular carcinoma and intrahepatic cholangiocarcinoma. Hepatocellular carcinoma is the most common liver tumor and originates from hepatocytes, usually in the context of cirrhosis or viral infections (hepatitis B and C). Intrahepatic cholangiocarcinoma arises from the bile ducts within the liver and is associated with inflammatory diseases of the biliary tract, such as primary sclerosing cholangitis. Both types tend to be aggressive, with difficult early diagnosis, and treatment may involve surgery, transplantation, ablation, or systemic therapies, depending on the stage of the disease. **Objectives:** To describe and compare the prevalence of liver and intrahepatic biliary tract cancer across different regions of Brazil from 2015 to 2024. **Methods:** A quantitative, observational study was conducted with an analysis of the epidemiological profile of liver and biliary tract cancer in the major regions of Brazil between 2015 and 2024. This study was supported by a literature review relevant to the subject. Data were obtained from the *Painel-Oncologia-Brasil* registry system, available on DATASUS, and population estimates provided by IBGE. **Results:** Between 2015 and 2024, Brazil recorded 24,360 cases of malignant neoplasms of the liver and intrahepatic bile ducts (ICD-10 C22). The regional distribution shows that the Southeast had the highest absolute number of cases (9,713), followed by the South (6,684), Northeast (4,850), Center-West (1,797), and North (1,316). However, when these figures are related to the estimated population of each region (IBGE, 2024), a more revealing scenario emerges. The South Region, with approximately 30.4 million inhabitants, has the highest proportional case rate, with 21.98 cases per 100,000 inhabitants, significantly higher than more populous regions such as the Southeast (10.84) and Northeast (8.47). Similarly, the North and Center-West, despite similarities in total population, showed different case rates for liver and biliary tract carcinoma, with 7.27 and 10.69 cases per 100,000 inhabitants, respectively. There was a marked increase in the number of cases between 2018 and 2023, peaking in 2023 (3,822 cases), followed by a decrease in 2024. **Conclusion:** The disparity in case numbers, when compared to the total population of each region, highlights the differences in diagnostic and reporting capabilities among the regions, as well as the possible higher prevalence of risk factors for the development of these pathologies (such as alcohol consumption, obesity, and

infectious or metabolic liver diseases). The data suggests a higher relative incidence in economically stronger regions, mainly due to better healthcare system effectiveness, particularly in the Southeast. Meanwhile, the North and Northeast regions may suffer from underreporting, limited access to specialized healthcare, and lower screening coverage.

Keywords: Cholangiocarcinoma; hepatocellular carcinoma; epidemiology.