

## SURVIVAL ANALYSIS IN PATIENTS WITH GASTRIC CANCER TREATED AT A UNIVERSITY HOSPITAL IN THE BRAZILIAN AMAZON

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**Introduction:** Gastric cancer remains one of the leading causes of mortality from malignant neoplasms in developing countries. The analysis of clinicopathological factors associated with patient survival can contribute to more effective management strategies.

**Objectives:** To evaluate overall survival and prognostic factors in patients with gastric cancer treated at the João de Barros Barreto University Hospital (HUJBB) in Belém, Pará, Brazil.

**Methods:** This retrospective study was based on the analysis of medical records of patients diagnosed with gastric cancer between 2016 and 2023. The study was approved by the Research Ethics Committee of UFPA (CAAE: 96154518.8.0000.5634).

All participants signed the Informed Consent Form (ICF). Survival analyses included 70 patients; however, some variables (such as TNM staging, histological type, and tumor location) had missing data and were analyzed proportionally. Clinical data were obtained from the Hospital Management System (AGHU), while sociodemographic information was collected through a semi-structured questionnaire previously completed by the patients. Overall survival was estimated using the Kaplan-Meier method, with group comparisons performed using the log-rank test in R software (version 4.2.1), employing the survival, survminer, and lubridate packages.

**Results:** Of the 70 patients included, 66% were male (n=46) and 34% female (n=24). Patients aged  $\geq 60$  years represented 49% of the sample. A history of alcohol use was reported by 33 patients, and smoking (current or former) by 36. Intestinal-type adenocarcinoma was identified in 12 cases and diffuse-type in 22. Tumors were located in the cardia in 9 cases and in non-cardia regions in 54. Distant metastases (M1) were found in 5 patients, and advanced lymph node involvement (N1, N2, or N3) in 31. The median overall survival was 35 months (95% CI: 29–41). No statistically significant differences in survival were observed based on age group (<60 vs.  $\geq 60$  years;  $p=0.077$ ), alcohol use ( $p=0.69$ ), smoking status ( $p=0.72$ ), histological type (intestinal vs. diffuse;  $p=0.14$ ), T stage (T1–T2 vs. T3–T4;  $p=0.45$ ), or

tumor location (cardia vs. non-cardia;  $p=0.65$ ). However, significant associations were found for lymph node status (N0 vs. N+;  $p=0.047$ ) and presence of metastases (M0 vs. M1;  $p=0.0007$ ), both linked to worse survival outcomes. Among deceased patients, the median time between diagnosis and death was 11 months (range: 0–63 months), with a mean of 15.9 months. This calculation was performed using the lubridate package to determine the interval between dates in months. **Conclusions:** Lymph node involvement and the presence of distant metastases had a negative impact on overall survival in patients with gastric cancer. These findings highlight the importance of early diagnosis and accurate staging to guide cancer treatment. Study limitations include the small sample size and the retrospective nature of data collection, which may limit the generalizability of the results. Furthermore, the incompleteness of clinicopathological data points to deficiencies in electronic health records, underscoring the need for improvements in hospital documentation systems.

**Keywords:** Gastric cancer; Survival; Retrospective study.