

# ANALYSIS OF HEART RATE VARIABILITY AND ACCELEROMETRY IN PATIENTS FOLLOWING SURGERY FOR THE TREATMENT FOR GASTROINTESTINAL CANCER

Maria Cláudia Valente Almeida<sup>1</sup>, Débora Carolina do Nascimento<sup>2</sup>, Laura Maria Neves<sup>2</sup>, Juliana Dias<sup>2</sup>, Anselmo e Silva<sup>2</sup>, and Saul Carneiro<sup>2</sup>

<sup>1</sup>Universidade do Estado do Pará

<sup>2</sup>Universidade Federal do Pará

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## Abstract

**Introduction:** Gastrointestinal cancer is the most prevalent form of cancer worldwide. Surgical treatment interferes with functioning and increases the length of hospital stay. However, studies have shown that early mobilization reduces the length of hospital stay. **Objectives:** Determine the cardiovascular safety and intensity of an adapted protocol for early mobilization in patients following surgery for the treatment of gastrointestinal cancer. **Methods:** An observational, cross-sectional study was conducted with 24 individuals: 15 in the case group (cancer patients in the post-operative period) and nine in the control group (hospitalized patients without cancer). All participants were submitted to a standardized early mobilization physiotherapeutic protocol. A portable heart rate monitor and accelerometer were used to obtain data on heart rate variability (HRV) and the intensity of physical activity (IPA) before and after the intervention. **Results:** No statistically significant differences in energy expenditure or IPA percentages were found between groups. Moreover, no significant difference in HRV occurred in the case group, whereas differences in RR, HR and pNN50 variables were found in the control group. **Conclusion:** Early mobilization for patients following surgery for the treatment of gastrointestinal cancer can be performed without increasing HRV and with energy expenditure and IPA similar to those found in patients without cancer.

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