28626 – OXIDATIVE MARKERS IN PATIENTS WITH BREAST CANCER

Marcelo Moreno*, Daiane Manica, Eduarda Valcarenghi, Débora Tavares de Resende,
Sarah Franco Vieira de Oliveira Maciel

Corresponding author: marcelounocco@icloud.com

Introduction: Numerous studies associate the emergence and progression of breast cancer with oxidative stress. This molecular scenario is characterized by an increase in pro-oxidants followed by a decrease in antioxidant defenses. **Methodology:** Participant recruitment took place at a reference hospital for cancer treatment in the western region of Santa Catarina (SC). After selecting participants based on the inclusion criteria — age over 18 years, with a diagnosis of invasive breast carcinoma (ICD: C50), and having not undergone surgical procedures for tumor removal or neoadjuvant therapy (chemotherapy, radiotherapy, hormone therapy, immunotherapy, targeted therapy) prior to the study — informed consent was obtained, and personal data as well as a blood sample were collected by trained professionals in an appropriate environment. The blood samples were transported to the Federal University of the Southern Border (UFFS) for processing. The levels of the enzyme superoxide dismutase (SOD) were evaluated in total blood using an enzymatic assay. Meanwhile, the levels of thiobarbituric acid reactive substances (TBARS) and ascorbic acid were measured in patient serum through colorimetric assays. For the control group, patients of similar age range were recruited. After obtaining the results, statistical analysis was performed using the Mann-Whitney test, with significance considered at $p<0.05$. This study was approved by the Research Ethics Committee of UFFS, under opinion nº 3.421.380 and the Certificate of Presentation for Ethical Review (CAAE) nº 09306919.5.0000.5564. **Conclusion:** In this study, we observed that patients with breast cancer have altered levels of oxidative stress markers, which may be associated with disease progression.