514 - HMGB1 EXPRESSION IN PATIENTS WITH TRIPLE-NEGATIVE BREAST CANCER: IS A GOOD MARKER FOR PROGNOSIS?

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Introduction: Breast cancer is one of the most frequent neoplasms worldwide, contributing to women's morbimortality. Triple-negative breast cancer (TNBC) is a highly aggressive subtype of cancer marked by negative estrogen receptors, progesterone receptors, and lack of the human epidermal growth factor 2 (*C-erbB2, HER2/neu*) gene overexpression. The high mobility group box-1 (HMGB1) is considered a DAMP (Molecular Pattern Associated Damage) regulating malignant tumorigenesis, proliferation, and metastasis. ***Objective:*** The HMGB1 expression was investigated as a prognostic factor for the TNBC. ***Methods:*** Clinicopathological data were assessed from 85 patients treated at the Haroldo Juaçaba Hospital (Ethics Committee approval number 18946313.3.0000.5528). Besides, a tissue microarray (TMA) block was constructed containing the patient. Then, immunofluorescence for HMGB1 was performed to quantify the intensity of expression and the percentage of fluorescent cells with cytoplasmic HMGB1 (cHMGB1) expression. Immunohistochemistry was performed for HMGB1. The analysis statistic is considered as significant with a statistical value of $p<0.05$. ***Results:*** The clinicopathological data analysis indicated that patients were older than 50 years (68.2%) and diagnosed with grade 2–3 ductal carcinomas (91.8%). Tumor metastasis was observed in 9.9% of cases. In all, 66.7% of TNBC patients who had adjuvant chemotherapy was low expression of HMGB1 ($p<0.05$). In addition, tumor cells that presented low cHMGB1 fluorescence demonstrated an increased local tumor recurrence compared with high expressing tumors ($p<0.05$). A 5 year overall survival was similar between patients with low versus high cHMGB1 expression ($p=0.155$).