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# PREVALENCE OF PD-L1 AMONG PATIENTS WITH METASTATIC TRIPLE-NEGATIVE METASTATIC BREAST CANCER (MTNBC) AND ITS ASSOCIATION WITH TUMOR-INFILTRATING LYMPHOCYTES (TIL)

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**Objective:** Immune checkpoint inhibitors (ICIs) combined with chemotherapy have emerged as the first line for patients with mTNBC whose tumors are PD-L1 positive. However, given the paucity of data in Brazilian populations, the objective of this study was to evaluate the prevalence of PD-L1 positive mTNBC in a single Brazilian center and its association with tumor-infiltrating lymphocytes (TIL). **Methods:** We assembled a retrospective cohort of all patients with metastatic breast cancer who have been tested for PD-L1 biomarker from January 2018 to December 2020. Patient's clinical information, including use of ICI, and PD-L1 status, was obtained from the electronic medical record's analysis, and the TIL slide's material was reviewed by a single pathologist. TIL were assessed according to the international consensus and were classified as low, intermediate, and high TIL, respectively, if they present with <10, 10–60, and >60%. Survival data (overall survival and progression-free survival) for TNBC patients who have been treated with immunotherapy are presented. **Results:** Among the 46 female patients tested for PD-L1 in our institution, 25 (54.4%) presented with mTNBC. Among this group (median age of 46 years), the majority was diagnosed between 2016 and 2020 (56%), in stages I or II (56%), and had invasive ductal carcinomas (96%). Most patients (23; 92%) underwent the SP-142 Ventana test, and the prevalence of positive (PD-L1 ≥ 1%) patients was 40%. Samples from primary tumor were more likely to be PD-L1 positive (9/17; 53%) compared with samples from metastatic sites (1/8; 12.5%) tumors. A total of 19 patients had TIL assessment. Most cases presented with low TIL (n=14; 73.7%), followed by intermediate TIL (n=5; 26.3%), and no cases of high TIL. Patients with PD-L1 negative tumors were more likely to present tumors with low TIL (9/11; 81.8%) versus those with PD-L1 positive tumors (5/8; 62.5%). A total of 13 patients received ICI plus chemotherapy. For this subset of patients, the median age was 47 years, 69.3% (n=9) had PD-L1 positive tumors, and most of them (n=12) received atezolizumab plus nab-paclitaxel. Only one patient received ICI as the first line. The median PFS was 2.36 months (2.4 months for PD-L1+ and 2.01 months PD-L1–). Two patients received the combination of ICI plus chemotherapy for >6 months. Disease progression was the main reason (64%) for ICI interruption. Only one patient stopped therapy for toxicity (neuropathy). **Conclusion:** To the best of our knowledge, this is the first "real-world" Brazilian study evaluating the prevalence of PD-L1 positive mTNBC and its association with TIL. The prevalence of PD-L1 in mTNBC is consistent with scientific literature, and physicians should prioritize performing the test in samples from primary tumors

**Keywords:** Immunotherapy. Triple-negative breast cancer. PD-L1. TIL.