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Dual anti-human epidermal growth factor receptor-type 2 blockade with taxane as first-line treatment for HER2-positive breast cancer with visceral metastases: a technology incorporation assessment within the Brazilian Unified Health System

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Objective: To assess the clinical outcomes of dual anti-human epidermal growth factor receptor-type 2 (HER2) blockade with taxane as first-line therapy for HER2-positive breast cancer with visceral metastases within the Brazilian Unified Health System (SUS, Sistema Único de Saúde). **Methods:** This was a retrospective analysis of women with HER2-positive metastatic breast cancer and visceral metastases treated at the National Cancer Institute (INCA, Instituto Nacional de Cancer) between 2020 and 2022. Eligible patients received first-line therapy with dual HER2 blockade plus taxane. Demographic, clinical, and pathological data were collected, and therapeutic outcomes were assessed based on progression-free survival, overall survival, and cardiotoxicity. **Results:** Seventy-one patients were included; 44% were under 50 years old. The most frequent metastases at baseline were liver (64%), bone (49%), and lung (46%). Fourteen patients developed central nervous system metastases during treatment. The median follow-up was 44 months, with a median progression-free survival of 23 months. At 24 months, overall survival was 73.9% (95% confidence interval [CI] 61.8–82.7) and progression-free survival was 42.6% (95%CI 30.0–54.5). Cardiotoxicity led to treatment discontinuation in 8.5% of patients. **Conclusion:** This study highlights the effectiveness of the dual blockade regimen within SUS in a cohort with 100% visceral metastasis. After 44 months, 50% of patients remained alive without disease progression, and the cardiac safety profile was predictable, both consistent with phase III trials. The 24-month overall survival rate of 73,9% was lower than expected, likely due to the more aggressive disease in our cohort and lack of HER2 blockade in later lines of therapy.

Keywords: ErbB-2 receptor; breast cancer.