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Real-world study on the use of trastuzumab deruxtecan in breast cancer at a public hospital in the state of Goiás

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Objective: To analyze clinical data, evaluate response rates, and overall survival in breast cancer patients receiving trastuzumab deruxtecan (T-DXd) at a public hospital in Brazil. **Methods:** Medical records of patients treated with T-DXd at the Clinical Oncology service of Hospital das Clínicas, Federal University of Goiás, were reviewed. **Results:** Among 28 patients proposed for treatment, 12 accessed the medication, while 15 awaited approvals due to legal barriers, since the medication is not incorporated into the national public healthcare system. Therefore, the median time from request to treatment was 3.5 months (range: 1–7). The median age was 54.4 years (range: 31–74). Tumor subtypes were evenly distributed: human epidermal growth factor receptor-type 2 (HER2)-positive (33.3%), luminal-HER (33.3%), and HER2 low (33.3%). All patients had localized disease and received neoadjuvant chemotherapy. The median time to metastatic recurrence was 39 months, with HER2 low patients experiencing the longest interval (86.5 months). Common recurrence sites were lungs and bones (58.4%), liver (50%), and unresectable local recurrence (33.4%). The median number of prior treatments was 4; at the time of analysis, 25% remained on treatment (median: 5 months, range: 2–22); and 75% experienced disease progression. Median progression-free survival was 5 months overall, 13 months for HER2 positive, and 4 months for luminal-HER and HER2 low. Two patients had received ado-trastuzumab emtansine (T-DM1) before starting T-DXd, both were HER2-positive. One had a minimal response (4.5 months with T-DM1 and 5 months with T-DXd), while the other had an exceptional response (31 months on T-DM1 and continued T-DXd for 22 months). Overall, 25% of patients died; median overall survival of 12 months after initiating T-DXd. **Conclusion:** Compared to DESTINY-Breast 3 and 4 trials, real-world outcomes were inferior, likely due to patient pre-treatment and access limitations. Despite these challenges, T-DXd demonstrated clinical benefits, reinforcing the need for optimized treatment strategies in public healthcare.

Keywords: breast neoplasms; receptor ErbB-2; drug therapy; drug-related side effects and adverse reactions.