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1023 – Therapeutic advances of sacituzumab govitecan and trastuzumab deruxtecan in the treatment of metastatic breast cancer: a systematic review

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Introduction: Metastatic breast cancer presents therapeutic limitations, since patients previously treated with conventional chemotherapy, especially those with heterogeneous subtypes such as HER2-low, HR+/HER2-, and triple-negative, often present an unfavorable clinical course. In this context, Trastuzumab Deruxtecan and Sacituzumab Govitecan, antibody-drug conjugates, emerge as pharmacological strategies based on the intracellular release of cytotoxic agents, promoting DNA damage and cell death. Therefore, they demonstrate improvement in the odds of progression-free survival and overall survival, as well as the expansion of therapeutic options.

Methodology: A systematic literature review that followed PRISMA guidelines registered in PROSPERO, under number CRD420261353633. The PubMed database was used to search the descriptors “metastatic breast cancer,” “Trastuzumab Deruxtecan,” and “Sacituzumab Govitecan.” Filters applied included “last 5 years,” “free full text,” “humans,” and “women.” The PICO criteria evaluated were: Participants: women diagnosed with metastatic breast cancer; Intervention: use of Trastuzumab Deruxtecan and Sacituzumab Govitecan; Comparator: patients undergoing conventional therapy; Outcomes: progression-free survival and overall survival. The included studies presented observational evidence, with overall risk of bias classified as moderate according to Joanna Briggs Institute criteria.

Results: Trastuzumab Deruxtecan demonstrated a significant increase in progression-free and overall survival in patients with HER2-low breast cancer. Sacituzumab Govitecan exhibited superior clinical efficacy over chemotherapy in triple-negative breast cancer, with gains in overall survival, as well as efficacy in HR+/HER2- tumors resistant to endocrine therapy. Both agents outperform single-agent chemotherapy in advanced lines, despite the potential risk of cross-resistance.

Conclusion: Trastuzumab Deruxtecan and Sacituzumab Govitecan represent significant advances in the treatment of advanced breast cancer, expanding therapeutic options and promoting significant survival gains, with superior efficacy compared to conventional chemotherapy across different tumor subtypes.

Ethics: Public data – Literature review.

Registry: Prospero CRD420261353633.

Keywords: breast neoplasms; treatment outcome; antineoplastic agents.