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1032 – Vacuum-assisted percutaneous excision after neoadjuvant systemic therapy for breast cancer: VAE breast 02 project

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Introduction: The management of residual lesions and the tumor bed following neoadjuvant systemic therapy for breast cancer is currently under discussion, particularly through minimally invasive techniques such as vacuum-assisted percutaneous excision in selected patient groups.

Objective: To evaluate the rate of complete resection of residual lesions and the tumor bed in patients after neoadjuvant systemic therapy for breast cancer who undergo ultrasound- or mammography-guided vacuum-assisted percutaneous excision.

Methods: This was a multicenter, analytical cross-sectional observational study, designed to assess the diagnostic accuracy of a percutaneous procedure. The purpose was to perform vacuum-assisted percutaneous excision in patients with early-stage tumors (T1–T2, N0 or N1) who, after neoadjuvant systemic therapy, presented with residual tumors ≤ 2.0 cm or achieved a complete clinical response, provided that the tumor bed had been previously marked with a clip. According to the surgical team's schedule, all patients will subsequently undergo standard surgical treatment. The sample size was calculated to estimate the minimum number of participants required to achieve a complete resection rate of 92% using the vacuum-assisted technique, with a margin of error of 2%, resulting in a minimum of 68 patients. This study was approved by the Research Ethics Committee of Hospital de Clínicas, Federal University of Goiás.

Results: To date, the study has included seven patients. Five of them received a tumor bed marker clip and are currently undergoing neoadjuvant systemic therapy, and two have undergone vacuum-assisted excision following neoadjuvant chemotherapy. Recently, a collaborating center was added, where patient recruitment will also take place.

Conclusion: This minimally invasive approach is expected to reduce morbidity and costs in selected patients with breast cancer, without compromising oncological outcomes.

Ethics: Research Ethics Committee Approval (CAAE 89889325.1.0000.5078).

Registry: Brazilian Registry of Clinical Trials (ReBEC), RBR-5cmx2g3.

Keywords: breast neoplasms; biopsy large-core needle; neoadjuvant therapy.