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887 – Glucagon-like peptide-1 receptor agonists as agents affecting breast cancer recurrence in women survivors: a systematic review

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Introduction: Breast cancer survivors frequently experience obesity and weight gain during and after treatment, which may have an impact on tumor recurrence. The use of glucagon-like peptide-1 receptor agonists (GLP-1 RAs) may influence body weight in these patients and potentially affect recurrence rates.

Objective: To evaluate the effectiveness of GLP-1 RAs compared with standard care on body weight and tumor recurrence among breast cancer survivors.

Methods: A systematic review was conducted based on the PECOS strategy (population = adult women after completion of primary treatment for breast cancer; exposure = use of GLP-1 analogues; comparator = standard care; outcomes = weight reduction and recurrence; study design = observational studies). The search was performed without restrictions on publication date or language across six databases and the grey literature. A total of 648 records were identified, of which three observational studies met the eligibility criteria, comprising 145 participants. Risk of bias was predominantly low across the included studies.

Results: The use of GLP-1 analogues resulted in weight loss ranging from 2.9 kg to 3.03 kg over six months in two studies. In one study, weight loss was lower than that in the general population when patients were receiving aromatase inhibitors. Only one study reported recurrence, with rates of 0% in the GLP-1 group *versus* 4.7% in the general population; however, this difference was considered not clinically significant by the authors. Due to the unavailability of complete data, a meta-analysis could not be performed.

Conclusion: The use of GLP-1 analogues may aid in reducing body weight among breast cancer survivors without affecting recurrence. Larger studies are needed to support and optimize the use and dosing of GLP-1 RAs for weight loss and to evaluate their effects on breast cancer recurrence among these patients.

Ethics: Public data – Literature review.

Registry: International Prospective Register of Systematic Reviews (PROSPERO) CRD420261284948.

Keywords: breast neoplasms; survivorship; glucagon-like peptide-1 receptor agonists; recurrence.