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SEMAGLUTIDE PLUS EMPAGLIFLOZIN IMPROVES RENAL OUTCOMES COMPARED WITH MONOTHERAPIES IN TYPE 2 DIABETES: A REAL-WORLD STUDY

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Introduction and Aim. In people with type 2 diabetes mellitus, glucagon-like peptide-1 receptor agonists and sodium-glucose cotransporter 2 inhibitors provide cardio-renal benefits, but the additive effect of their combination on renal outcomes in clinical practice is less defined.

Materials and Methods. Observational study (312 patients) with a baseline assessment and follow-up at 24 months. We compared semaglutide, empagliflozin, and combined semaglutide plus empagliflozin therapy. Primary endpoint: composite renal responder (non-negative change in estimated glomerular filtration rate, eGFR, and no worsening in albuminuria category). Analyses used adjusted models and inverse probability of treatment weighting.

Results. The renal responder rate differed across groups (empagliflozin 52.9%, semaglutide 73.2%, combination 97.1%; global $p < 0.00001$). In adjusted models, the combination outperformed empagliflozin (odds ratio 33.55; $p < 0.00001$) and semaglutide (odds ratio 13.99; $p = 0.0004$), with consistent findings after weighting (global $p = 0.0007$). The combination also improved change in eGFR (β 11.17; $p = 0.0055$). The triglyceride-glucose body mass index (TyG-BMI) showed no significant between-group differences after adjustment (global $p = 0.4719$).

Conclusions. In this real-world cohort, combined semaglutide plus empagliflozin therapy was associated with better renal outcomes than either monotherapy, with robust results after adjustment and weighting.