STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No.	Recommendation	Page No.	Relevant text from manuscript
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1	"This randomized controlled trial…" in abstract methods
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1	Abstract includes background, objective, methods, results, conclusion
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	1-2	Diabetic kidney disease (DKD) is a major complication of type 2 diabetes characterized by albuminuria, metabolic dysfunction, and chronic low-grade inflammation leading to progressive renal impairment. Although SGLT2 inhibitors and GLP-1 receptor agonists individually provide metabolic and renoprotective benefits, evidence regarding their combined use in early DKD remains limited, providing the rationale for this investigation.
Objectives	3	State specific objectives, including any prespecified hypotheses	2	This study aimed to evaluate the short-term effects of canagliflozin and semaglutide, administered alone or in combination, on renal function (UACR and eGFR), metabolic parameters, and systemic inflammatory biomarkers in patients with early-stage diabetic kidney disease. The prespecified hypothesis was that combination therapy would provide greater short-term benefits than monotherapy.
Methods				

Study design	4	Present key elements of study design early in the paper		
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2–3	Randomized controlled trial with four parallel groups.
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	3	Conducted at Xi'an Gem Flower Changqing Hospital, China, from January 2022 to June 2023, with 24-week follow-up.
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	3	Adults aged 18–75 years with early DKD (UACR 30–300 mg/g; eGFR ≥60) were enrolled based on predefined inclusion/exclusion criteria.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	N/A	No matched study design.
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	3–4	Outcomes included UACR, eGFR, HbA1c, FBG, HOMA-IR, lipids, inflammatory markers, and safety events.
Bias	9	Describe any efforts to address potential sources of bias	4	Standard laboratory methods, ELISA assays, and CKD-EPI equation were used consistently across groups.
Study size	10	Explain how the study size was arrived at	3	Random allocation, opaque envelope concealment, and blinded outcome assessment minimized bias.

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Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	4	Quantitative variables were analyzed as mean ± SD using appropriate parametric/nonparametric tests.
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	4	Paired t-test, ANOVA, LSD post hoc, chi-square, and Kruskal-Wallis tests were applied.
		(*b*) Describe any methods used to examine subgroups and interactions	N/A	No subgroup or interaction analyses performed.
		(*c*) Explain how missing data were addressed	5	No missing data were reported.
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	5	No loss to follow-up occurred.
		(*e*) Describe any sensitivity analyses	N/A	No sensitivity analyses performed.
Results				
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	4–5	A total of 120 eligible patients were randomized into four groups (n=30 each), all completed the 24-week follow-up and were included in the final analysis.
		(b) Give reasons for non-participation at each stage	4–5	No participant withdrawals or exclusions after randomization were reported.
		(c) Consider use of a flow diagram	4	Participant flow diagram provided in Figure 1.
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	4–5	Baseline demographic and clinical characteristics including age, sex, BMI, blood pressure, diabetes duration, renal, metabolic, and inflammatory parameters were reported.
		(b) Indicate number of participants with missing data for each variable of interest	5	No missing data were reported for study variables.
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	4–5	Follow-up duration was 24 weeks for all participants.
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	5–6	Renal, metabolic, inflammatory, and safety outcomes were assessed at baseline, week 12, and/or week 24 as specified.

		Case-control study—Report numbers in each exposure category, or summary measures of exposure	5–6	Group comparisons were presented using P values; no adjusted analyses or confidence intervals were reported.
		Cross-sectional study—Report numbers of outcome events or summary measures	3–4	Continuous variables were analyzed as measured; categorical thresholds included UACR 30–300 mg/g and eGFR ≥60 mL/min/1.73 m² for eligibility.
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	N/A	Relative risk estimates were not reported.
		(*b*) Report category boundaries when continuous variables were categorized	4–5	A total of 120 eligible patients were randomized into four groups (n=30 each), all completed the 24-week follow-up and were included in the final analysis.
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	4–5	No participant withdrawals or exclusions after randomization were reported.

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Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	5–7	Exploratory subgroup-style comparisons included renal, metabolic, inflammatory, and safety outcomes across treatment groups; no formal sensitivity analyses were performed.
Discussion				
Key results	18	Summarise key results with reference to study objectives	6–7	Combination therapy showed greater short-term improvement in albuminuria, metabolic control, and inflammatory markers compared with monotherapy.
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	**7**	Limitations included short follow-up, small sample size, exploratory secondary endpoints, and limited applicability to advanced DKD.
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	**7**	Findings suggest short-term comparative benefits, but causal conclusions and long-term renoprotection cannot be established.
Generalisability	21	Discuss the generalisability (external validity) of the study results	**7**	Results may be generalizable only to patients with early-stage DKD and preserved renal function.
Other information				
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	8	No funding was received for this study.

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.