

REVIEWER'S REPORT

Manuscript No.: IJAR- 58082

Title: Ayurvedic CDC Multimodal Protocol for Type 2 Diabetes Mellitus at Madhavbaug Clinic: Glycaemic and Cardiometabolic Outcomes in 97 DM Package Patients – A Retrospective Observational Study

Recommendation:

Accept after minor revision

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity			✓	
Significance	✓			

Reviewer's ID: JPR 228

Detailed Reviewer's Report

The retrospective observational study titled "Ayurvedic CDC Multimodal Protocol for Type 2 Diabetes Mellitus at Madhavbaug Clinic: Glycaemic and Cardiometabolic Outcomes in 97 DM Package Patients" evaluates the clinical efficacy of a structured, classical Ayurvedic intervention framework for managing Type 2 Diabetes Mellitus (T2DM). Conducted between 2024 and 2026 at the Gandhinagar Pramukh Clinic within the Gujarat RIC network, the study tracks glycaemic, anthropometric, haemodynamic, and cardiometabolic parameters across 97 patients. This particular cohort is of notable epidemiological interest as it represents the largest and youngest population (mean age 42.8 years) within the regional network. The demographic is predominantly composed of state government employees and administrative professionals whose sedentary desk-bound routines, workplace stress, and institutional dietary exposures predispose them to a high risk of young-onset T2DM.

Methodologically, the study assesses the impact of Madhavbaug's chronic disease care (CDC) protocols, which operationalize the traditional Ayurvedic understanding of diabetes (*Prameha* or *Madhumeha*) as an imbalance of *Kapha* and *Meda* obstructing the *Medovaha Srotas*. The multimodal framework integrates body mass index (BMI)-stratified Panchakarma therapies—including specialized *Basti* (enemas), *Abhyanga* (massage) with *Neem Siddha Taila*, and *Swedana* (sudation) with *Dashmula Kwath*—alongside individualized oral herbal formulations and a structured 800 kcal/day low-carbohydrate, high-

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protein *Prameha* Diet Box. Statistical comparisons were executed using paired, two-tailed Student's t-tests to evaluate pre- versus post-treatment values, providing an empirical baseline for early-stage Ayurvedic intervention in working-age populations.

Improvements and Suggestions

- **Address the Lack of a Control Arm:** The authors must explicitly expand their limitations section to clarify how a purely retrospective observational design lacking either an active or non-intervention control arm restricts causal inferences.
- **Explain Primary Endpoint Sample Attrition:** The manuscript needs to clarify why the paired HbA_{1c} inferential analysis is restricted to a small subset of 37 patients ($n=37$), despite a total enrolled cohort of 97 patients. The authors should provide a clear flowchart detailing patient attrition to rule out potential selection bias.
- **Correct the Glycaemic Data Typo in the Abstract:** In the results section of the abstract, the baseline Random Blood Sugar (RBS) value is missing the first digit, appearing erroneously as "\$95.71 \pm 94.90" instead of the correct value of "\$195.71 \pm 94.90 mg/dL" documented in Tables 1 and 5. This typographical omission must be corrected immediately.
- **Provide Detailed Baseline Medication Profiles:** Given that 96 out of 97 patients (98.9%) experienced no change in their conventional pharmacological regimens, the authors must provide a baseline table detailing the concurrent oral hypoglycaemic agents or insulin therapies active during the study. This is critical to clarify whether the observed reductions in glycaemic markers were achieved synergistically with stable conventional treatments.
- **Re-evaluate the Socio-Behavioral Assumptions in Sex-Stratified Findings:** The discussion attributes the higher HbA_{1c} reduction in female patients ($\Delta -1.04\%$, $p=0.020$) versus male patients ($\Delta -0.40\%$, $p=0.048$) solely to higher dietary adherence driven by household cooking roles. The authors should supplement or balance this speculation with established clinical perspectives, such as baseline metabolic differences or variations in physical activity compliance.
- **Correct Missing Elements in the Sex-Stratified Text:** In section 3.6, the text contains a typographical error where a right-facing arrow was omitted in the phrase "8.59% 7.55%". This must be updated to "8.59% \rightarrow 7.55%" to maintain structural consistency with the male data presentation.
- **Italicize and Standardize Classical Sanskrit Terminology:** For proper alignment with standard ethnopharmacological and traditional medicine literature, classical Sanskrit terms such as

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Prameha, Madhumeha, Sthula Pramehin, Krisha Pramehin, Snehan, Swedana, and Basti must be consistently italicized throughout the text.

- **Rectify Table Layout and Notation Errors:** In section 3.5, the table title is missing its numbering header. Additionally, the sample size notation for weight includes an erroneous degree symbol ($n=85^{\circ}$) which should be cleaned up to a standard integer format ($n=85$).
- **Purge Stray Editorial Tracking Artifacts:** The manuscript contains capitalized marginal notations such as "AR," "PE," and "UNDER," which appear to be remnants of proofreading watermarks or internal publisher tracking notes. These must be thoroughly expunged from the final prose.
- **Complete and Standardize the Reference List:** Multiple citations in the reference section are truncated or incomplete. Specifically, Reference 2 (Mohan V, et al.), Reference 9 (Singh J, et al.), and Reference 10 (Patwardhan B, et al.) omit full article titles and complete concluding page ranges, which must be resolved to meet standard academic formatting guidelines.

Editorial Decision

Decision: RESUBMIT AFTER REVISION

Justification

The clinical trends presented in this large, young-onset T2DM cohort offer encouraging preliminary data on the integration of standardized Ayurvedic care pathways with targeted lifestyle restrictions. However, the manuscript cannot be accepted for final publication in its current state due to critical structural omissions, data reporting discrepancies (such as evaluating the primary glycaemic endpoint on less than 40% of the total cohort), and visible proofreading oversights

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