

Basic Reporting

I have reviewed the manuscript titled "Reliability and Utility of Blood Glucose Levels in the Periodontal Pockets of Patients with Type 2 Diabetes Mellitus." The study addresses an important topic and is generally well-structured, with clear aims and comprehensive methodology. However, certain areas require improvement, including detailed reporting of sample size determination, participant selection criteria, and statistical analyses. Additionally, a deeper comparison with existing literature and discussion of the study's limitations would enhance the manuscript. My detailed comments and suggestions are provided below.

For the best interest of the manuscript please consider to add details about the biological mechanisms linking diabetes and periodontal disease, and discuss the advantages and limitations of GBG measurements.

The authors should double check the citations in main body of manuscript, some references studies are too much old, please consider to update with some latest relevant literature review.

Make sure all the units, formulas and abbreviations used in the manuscript are according to the journal's guidelines, for this please check the author guideline section of the journal.

I would recommend that please conduct a final proofread to catch minor grammatical errors or awkward phrasing.

Experimental design

Authors, please insure that's what were the specific inclusion and exclusion criteria beyond age and dentition status? Were there any other health conditions or medications that could influence blood glucose levels and were thus considered?

How recent were the HbA1c measurements used to classify participants into diabetic and non-diabetic groups? Were these measurements taken specifically for the study or obtained from medical records?

The timing of HbA1c measurements can impact their accuracy and relevance to the study period.

Were the periodontal examinations conducted by a single examiner or multiple examiners? If multiple, was there any calibration or inter-examiner reliability assessment performed?

How was the minimum volume of 1.0 µl for blood glucose measurement determined to be sufficient? Was this volume validated against larger sample volumes to ensure accuracy?

Were any adjustments made for potential confounders (e.g., age, sex, smoking status) in the correlation and regression analyses between GBG and FTBG levels?

What criteria were used to define a clinically significant difference between GBG and FTBG levels in the Bland–Altman analysis?

Authors, please consider, how were the cut-off values for diabetes screening determined from the ROC curves? Were these values validated or compared against established clinical thresholds?

How was consistency ensured in the selection of periodontal sites for GBG measurement? Were specific teeth or sites consistently used across all participants?

Be more specific about what future studies should focus on, such as larger sample sizes, different populations, or longitudinal studies.

If manuscript is in English then authors should submit an English version of ethical statement.

Validity of the findings

How did this study, account for the differences in periodontitis severity between the diabetic and non-diabetic groups in your analysis? Did you control for periodontitis severity in your statistical models?

What criteria did you use to define acceptable limits of agreement in the Bland-Altman analysis? How do these criteria relate to clinical relevance?

Did you perform any cross-validation or external validation of the cut-off values derived from the ROC analysis? How robust are these cut-off values across different populations?

Additional

In discussion section, please, emphasize the potential clinical applications of using GBG measurements and compare your findings with other studies to highlight consistencies and discrepancies.

Discuss how the small sample size and differences in periodontitis severity might impact the generalizability of the findings.