

Reviewer #1:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: The manuscript by Xu et al. is interesting and highlights the significant factors contributing to periodontitis in patients with type 2 diabetes. The authors clearly defined the inclusion and exclusion criteria for selecting patients for the study. The diagnostic criteria and method for classifying periodontitis as the contributing factors are described in detail. Although the results are presented in the tables, it is sometimes more challenging to follow all the information in the text. For example, when the text states how many patients have a certain level of education, it must be clarified that "below" and "above" refer to the high school, which is much more clearly expressed in Table 1. The presentation of data on the incidence of periodontitis in relation to the level of education requires clarification. It can be noted that 83.05%, 77.55%, and 49.52% refer to below, above, and high school education, respectively. But it refers to below, high school, and above high school education. The discussion is well-written, and the authors support most of their findings with other studies or explanations. What is missing, however, is an explanation of why the incidence of periodontitis is the lowest in obese patients and even lower than in underweight patients. Overall, the manuscript is well-written, and the conclusion supports the findings of this study.

Reply: Thank you for your suggestions on the article. The explanation of educational level has been revised in the results section. The lowest incidence of periodontitis in obese patients may be due to the fact that the sample source of the study was relatively single. Therefore, the data are subject to some bias, and the results section has been modified for this purpose.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (General priority)

Specific Comments to Authors: As the authors mentioned in the discussion part, there were studies which investigated the influencing factors of periodontitis in T2DM patients. I suggest to rewrite the title updating it to indicate that the authors developed a predictive model by using these factors, since it is the novelty part of the paper.

Reply: Thank you for your suggestions on the article, the title has been revised according to your suggestions.

Reviewer #3:

Scientific Quality: Grade D (Fair)

Language Quality: Grade C (A great deal of language polishing)

Conclusion: Rejection

Specific Comments to Authors: Although the manuscript concept is important there are several pitfalls in the entire work, some of which are pointed out below: - Title:- Should

have been "Factors influencing periodontitis in patients with T2DM" - Language and style:- There are several language errors (grammar & syntax) throughout the paper such as: 'predictive effect' instead of 'predictive value' (abstract conclusion), 'random forest' instead of 'random forest plot/model' (last sentence of core tip) - which is repeated at multiple places. Abstract:- doesn't truly reflect the results in the main text (the important results of multivariate analysis with OR not shown) - Introduction:- the section should have stated some previous studies with factors which had shown influence on the occurrence of periodontitis (currently these are mentioned in the discussion section) for making the rationale for this study, especially with a new statistical model (random forest plots). - Methods:- There is no STROBE diagram showing the study flow to ensure transparency of the work. - What is the criteria for BMI cut offs used in the study (24 and 28 kg/M2).? - Statistical analysis should have explained the factors excluded as dependent and independent variables in the multivariate models - Results:- There are a lot of duplication of of the data in the text and tables which makes reading difficult - The tables should have been less without separate ones for analysis and descriptive data - There are errors in the analyses described in the tables including inappropriate use of multivariate model without good description of variables to be excluded from univariate models - Discussion:- Again there are repetition of the results in this section and the comparison with existing results are not adequate. - References:- Are inadequate contrasting the results of the study.

Reply: Thank you for your suggestions on the article! The title section has been modified according to your suggestions. The syntax error you pointed out has been corrected in the article. The abstract has been amended and supplemented. The introduction section has been revised and supplemented according to your suggestions. The flow chart was supplemented in the Methods section, and the criteria for BMI were referred to the reference(He W, Li Q, Yang M, Jiao J, Ma X, Zhou Y, Song A, Heymsfield SB, Zhang S, Zhu S. Lower BMI cutoffs to define overweight and obesity in China. Obesity (Silver Spring). 2015 Mar;23(3):684-91. doi: 10.1002/oby.20995. Epub 2015 Jan 22. PMID: 25645003.). The statistical analysis section has accounted for the variables excluded from the multivariate model. The results section has been modified according to your suggestions, the tables have been modified, and the description of the results has been modified and supplemented. The discussion section and references have been revised and supplemented.