

REVIEWER'S REPORT

Manuscript No.: IJAR-56721

Title: Advances in Salivary Biomarkers for Early Identification of Dental Caries

Recommendation:

Accept after minor revision.....

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

Reviewer's ID: JPR-198

Detailed Reviewer's Report

This narrative review synthesizes current evidence on salivary biomarkers for early detection of dental caries. It covers microbial, proteomic, immunological, oxidative stress, and biochemical markers, along with emerging biosensor technologies. The manuscript is well-structured, clearly written, and provides a useful overview of an evolving field.

Major Comments

1. There is no methods section

A review article must describe how the literature was searched. This manuscript has no search strategy — no databases, no date range, no search terms, no inclusion or exclusion criteria, and no statement of how many articles were identified or selected. Without this, the review cannot be evaluated or reproduced. A structured methods section following a recognised reporting guideline (such as SANRA for narrative reviews) must be added.

2. The manuscript is too short and superficial

The entire review body is approximately 100 lines. Each topic — microbial biomarkers, proteomic biomarkers, immunological biomarkers, oxidative stress, emerging technologies — receives two to four sentences. A review of this kind should provide a meaningful synthesis of each biomarker category, including what the best studies found, what sample sizes were involved, and what the evidence quality

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looks like. As currently written, the manuscript adds nothing beyond what can be found in the abstract of each cited paper.

3. No diagnostic performance data are reported

This is the most significant scientific gap. For a review on biomarkers for early disease detection, the central question is: how well do these biomarkers actually detect caries? No sensitivity, specificity, area under the curve (AUC), or likelihood ratio values are reported for any biomarker anywhere in the manuscript. At minimum, the best-performing biomarkers from the cited systematic reviews and meta-analyses should be summarised with their diagnostic performance estimates.

Minor Comments

4. Clean up formatting so references appear consistently as bracketed numbers [1], [2]
5. Some content overlaps between sections (e.g., microbial biomarkers mentioned in introduction and again in dedicated section). Acceptable for a narrative review but could be tightened.