Reviewer’s report

Title: ART restorations in patients with disability: methodological considerations and one year follow up.

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Reviewer: Maria Fidela Navarro

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Review of the manuscript entitled: ART restorations in patients with disability: methodological considerations and one year follow up

The study deals with the treatment of disabled patients, a demanding subject and this submission is welcome, since it will contribute to diminish patient suffering.

The aim of the study was to assess the survival rate of ART restorations compared to conventional restorations in people with disability.

In the Abstract section there is a mistake regarding the percentage of patients who received CRT/Clinic: instead of (13%) it should be (7.5%). I also suggest that all percentages appear with decimals to standardize the data.

The Background section starts with a statement based on the systematic review done with adult patients, but this detail is not mentioned. I suggest citing that the study was done in adults. I also suggest the inclusion of the study done by Oliveira et al (2013) with adolescents and adults, and having siblings as controls: The authors observed that ID patients have more decayed and missing teeth, fewer restorations and had a greater need for tooth extraction than their siblings had.

In addition to the established aim of the study, the authors added that they would also outline the methods used to obtain and analyze the data in details, as a basis for future reports and many other variables, resulting in weakness to the work. This was reported in the last paragraph of the Discussion section: “In addition to the non-random assignment of patients to restorative strategies, the study presents a certain number of other limitations. No power calculation could be performed resulting in an unevenly distributed sample size over the treatment group”. My suggestion to overcome this weakness is that this paper should be published as a Pilot Study.

At the Development of Information Brochures, there is a reference to (appendix 1) that should be deleted.

The authors should add a reference at the end of the second paragraph in Study design and attribution to treatment group. This paragraph starts with “Randomization of persons…and ends with consent,” and the reference would support this statement.

In Treatment Procedures, “dentine carious lesions…. were prepared” should be
changed to “were initially removed after” ...

At the Evaluation Section, it is stated that the two examiners were calibrated, but the inter-examiner kappa was 0.62 and the percentage of agreement was 91.7%. Could the authors explain the calibration process?

At the Results Section, I suggest that the authors mention how many patients planned to receive ART treatment went to CRT and vice versa and how many went to GA.

In the last paragraph of the “Effect of background variables on the treatment groups” Table 1 was cited. How to explain that there were significantly more restorations in permanent teeth treated with GA then the ones treated using the other protocols if DMFT and the D component is higher for the CRT and ART treated patients?

Although Tables 1 and 2 and Figure 1 show the results after 6 months, the text misses a comment in this regard.

The authors should make a revision of the whole text and when making a citation of an organization or a technique for the first time should add an abbreviation and subsequently only the abbreviation.

In the Reference Section, I suggest the inclusion of the following paper:


**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.