Reviewer’s report

Title: Zirconia crowns cemented on titanium bars using CAD/CAM: A five-year Follow-Up Prospective Clinical Study of 9 Patients

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Reviewer: Giuseppe Luongo

Reviewer's report:

title: since the paper focuses on the results obtained with 9 patients, it is correct to define it as a "case series" rather then a "prospective study" so please eliminate the term "prospective" from your title

abstract: it has to be completely rewritten. the long background of the abstract is too vague, what CBCT has to do with zirconia crowns? are you talking about guided surgery? (CBCT?) or what? it is not clear what the aim of your study is. please rewrite your background, being more focused on the study hypothesis (if you have one- i tell you that you should). the methods are not clear. inclusion/exclusion criteria? what kind of patients? what kind of prosthetic restoration? methods? what did you do here? you did not mention all details from your study and you mention a supposed problem with another kind of restoration (zirconia-supported all ceramic restorations). but you are not using them here. and they do not exist: zirconia-ceramic is not full ceramic. zirconia is not a ceramic! please erase. here you are talking of bars but we do not know how you fabricated them (cad/cam? which material?). what are the variables are you evaluating here? no mention of them here. and they do not exist: zirconia-ceramic is not full ceramic. zirconia is not a ceramic! please erase. here you are talking of bars but we do not know how you fabricated them (cad/cam? which material?). what are the variables are you evaluating here? no mention of them. in the results, please do not mention lithium disilicate as "ceramic". please give more details. your conclusions are too vague they should be based on the results of your study. nonsense to mention here the complications, you even did not mention them as variables. and once again crestal bone loss is not related to the prosthetic outcome. please erase and rewrite. finally, the quality of the english language is too low- please correct.

text. background is well written but unnecessarily long, you shoul start immediately with the concept of the Toronto bridge and its characteristics, that are still not very well defined in the literature and not clear to everybody. please detail what kind of restoration is the Toronto bridge and eliminate the first paragraphs that are about problems that are well known in dentistry worldwide. finally, not a single line on the digital revolution, you do not mention here scanners, CAD software, milling units that are key and you should introduce them before to give the purpose of your study. in addition, there are several new study on the full digital Toronto bridges for example from the school of Prof. Gherlone in Italy published on the CAD/CAM Toronto technique and you should shortly report on those studies, because the topic is new, there are only a few studies and they should be mentioned. in your purpose be more specific.

methods. it is not clear to me why a University from Australia said that this italian study does not need ethics committee approval.
the computer guided surgery should be explained in full details, two lines are not sufficient. flapless or not? expand your text here. Intralock implants are not manufactured in Salerno, Italy. not a single word on how the impressions were taken- with an intraoral scanner or with polysulfide or polyether? it makes all the difference. you show conventional impressions in your figures but the legends do not give sufficient details. not digital completely only partially. but today you can go full digital with bars - once again see Prof. Gherlone's works. fig. 2 a there is one implant in a strange position. can you explain why? nothing to say on the cad/Cam procedure that is rather a classic. no description of your outcome variables nor the statistical analysis. did you use radiographs to control the implants at 3,4,5 years? if yes, you need to say it. you need to add statistics even if they were simple.

results. 4 lines is too little. expand, you need to comment and describe your outcomes. how can you mention complications if you did not describe what a complication actually is?

discussion. this section should be restructured around the concept on how the digital technologies and the cad/cam technique have an impact on the fabrication of titanium bars for Toronto briges because these restorations exist since long time, the only real innovation is the cad/cam and the data acquisition that can be different with intraoral scanners, but you did not use it. the study has enormous limitations, 9 cases are nothing, but you do not mention it, and you do not mention about the hygienic issues related to a restoration like a Toronto bridge.

conclusions. only partially acceptable, you should focus on your results.

references. needs integration.

figures. acceptable.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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