

Peer Review File

Article information: <https://dx.doi.org/10.21037/fomm-23-6>

Reviewer A

Thank you for submitting the above manuscript to the Frontiers of Oral and Maxillofacial Medicine. We are honored that you consider the publication of your study in this journal. Your manuscript has been reviewed. A summary of the considerations is described below.

The manuscript evaluated and compared the change in the retentive force of three different attachment systems (ball, locator, and bar and clip) for two implant-supported overdenture at baseline, 3 months, 6 months, and 1-year duration. It provides valuable information to guide clinicians in clinical practice. Modifications are needed to improve the discussion, understanding, and text fluidity.

Finally, I also recommend an English review because there are grammatical, punctuation, and textual fluidity errors.

Comment 1: Abstract:

- You need to include the background of the study in the abstract.

Reply: Background of study is included

Changes in text: Abstract (Page 1, lines 5 to 10)

Comment 2: - Change “Materials and Methods” to “Methods”.

Reply: Changed to methods

Changes in text: Abstract (Page 1, line 14)

Comment 3- Remove the term “i.e.” from the objective.

Reply: Removed the term from objective

Changes in text: Abstract (Page 1, Line 14)

Comment 4: Methods:

- Write more directly. Suggestion: “Three types of attachments were used: ball, locator, and harder bar.”

Reply: modified text according to the suggestion given.

Changes in text: Abstract (Page 1, Line 14, 15)

Comment 5- I don't understand the sentence, “The elastic components of the metal housings were changed for sample size (n=6)”. Please explain and rewrite.

Reply: Sample size was mentioned. Re – written the statement in better way.

Changes in text: Abstract (Page 1, Line 15)

Comment 6- The sentence “The result was tabulated and subjected to statistical analysis

using ANOVA test with Bonferroni post hoc analysis.” does not need to be in the abstract, please remove it.

Reply: Sentence is removed.

Changes in text: Abstract (Page 1, Lines 19,20,21)

Comment 7: Results:

-Remove the sentence “Within the limitations of the study”.

Reply: Removed the sentence

Changes in text: Abstract (Page 1, Line 22,23)

Comment 8: Conclusions:

- Rewrite emphasizing which attachments performed better in the study, to respond to the presented objective.

Reply: Corrections done as suggested

Changes in text: Abstract (Page 1, Lines 22,23,24)

Comment 9: Introduction:

- The paragraphs are very small. You can be unified in some paragraphs to start and end the reasoning in each one. In the introduction, we must place the reader in the first paragraph and write the problem that will be studied.

Reply: Paragraphs are unified and sentences are modified

Changes in text: Introduction (Page 2,3, Lines 31-70)

Comment 10- Remove the term “i.e.”.

Reply:

Changes in text: Introduction (Page 3, Lines 65-67)

Comment 11- Insert reference for the following sentences:

“When implants are splinted with a superstructure bar, reduced loading forces are exerted on the anterior implants compared to individual implants.”

“Overtime cyclic dislodgments cause fatigue, wear, and deformation of overdenture attachments adversely affecting their maintenance, patient satisfaction, and function.”

1)Reply: “*When implants are splinted with a superstructure bar, reduced loading forces are exerted on the anterior implants compared to individual implants.*”, This sentence is re written and reference is mentioned as 17. Misch CE. The edentulous mandible: an organized approach to implant-supported overdentures. In: Misch CE,. Contemporary Implant Dentistry. 3rd ed. St. Louis: Mosby; 2007. p. 300-5

Reply: The reference is from page number 303, under the heading “Overdenture option 2)”

Changes in text: Introduction (Page 2, Lines 53-56)

2)Reply: “*Overtime cyclic dislodgments cause fatigue, wear, and deformation of overdenture attachments adversely affecting their maintenance, patient satisfaction, and function.*” This

sentence is re written with the reference mentioned as 9. (Kang T-Y, Kim J-H, Kim K-M, et al. In Vitro Effects of Cyclic Dislodgement on Retentive Properties of Various Titanium-Based Dental Implant Overdentures Attachment System. *Materials (Basel)* 2019;12(22):3770.

Changes in text: Introduction (Page 2, lines 56-58)

Comment 12: Methods:

-“This in-vitro study was conducted in the Department of Prosthodontics at Dr. D.Y. Patil Dental College and Hospital, Dr. D. Y. Patil Vidyapeeth, Pimpri, Pune-18.” This information is unnecessary for an in vitro study, please remove it.

Reply: Sentence removed

Changes in text: Methods (Page 4, lines 72-74)

Comment 13: Write “Group” in lowercase.

Reply: Changed to lowercase

Changes in text: Methods (Page 4, Lines 72-74)

Comment 14: Remove the term “i.e.”.

Reply: changed as suggested.

Changes in text: Methods (Page 4, Lines 72-74)

Comment 15: Results:

-In the sections described in the results, information that is already presented in the figures and tables is repeated. Either write it in a summarized form or it doesn't need the table or the percentage figures, since information cannot be repeated. Also, the paragraphs are too small, they must be unified.

Reply: Corrections done as suggested

Changes in text: Results (Page 4,5, Lines 117-149)

Comment 16: Discussion:

“Conventional dentures have been unsatisfactory to patients with the atrophic mandible. A significant percentage of patients wear poorly fitting dentures, which may lead to excessive discomfort, decreased denture use, and avoidance of certain foods.”

Insert reference. Also, I think it is not very accurate to say it has been “unsatisfactory” because if done well, the prosthesis can play a good role and is the only treatment option for a portion of the population.

Reply: The sentence is reframed and the reference for the same is mentioned as 14. Upinder S, Saluja BS, Gupta G, et al. Comparison of changes in retentive force and wear pattern of two stud attachments for implant overdentures: An in vitro study. *Indian J Dent Sci* 2019;11:65-70.

Changes in text: Discussion (Page 6, Lines 117-149)

Comment 17: Insert reference for the sentences: “The introduction of the concept of osseointegration by Brånemark leads to various new choices for prosthetic concerns. This also

included overcoming the maladaptation of dentures in the oral cavity by implant-supported overdentures.”

Reply: Removed the sentence as found inappropriate

Changes in text: Removed from the Discussion (Page 6)

Comment 18: Insert reference for the sentence: “Studies have shown that in contrast to metal, only the elastic part of the resilient attachments are affected by wear.”

Reply: Removed this sentence.

Changes in text: Removed from the discussion part (Page 6)

Comment 19: “The sample size of the study used was relatively small, but was in accordance with previous similar experiments.” Was the sample number used based on previous studies? If yes, which ones? Insert the references and this information in the study methodology.

Reply: Similar studies were done with sample sizes 5 and 4 as well. References are quoted

Changes in text: Discussion. (Page 7: Line 196)

Comment 20: What were the limitations of the study? Explain and discuss.

Reply: Limitations are mentioned in Discussion, last paragraph.

Changes in text: Discussion (Page 7, line 194- 202)

Comment 21: Conclusions:

- The conclusion is huge. It must be rewritten, in a concise and direct way, responding only to the objective of the study. It should not have results information.

Reply: Corrections done as suggested.

Changes in text: Conclusion (Page 8, Lines 207-214)

Reviewer B

1. Abstract

Original Article requires structured abstract and the following structure must be followed: **Background, Methods, Results, Conclusions**. Please revise.

2. Tables

Please revise all the data format. They should be written in “x.xx”, not “.xx”, please revise.

For

example:

Cycle 270	9.0133	.41400		
-----------	--------	--------	--	--

Here should be 0.41400

3. Table 1, 3, 5, and 7

Please provide the header of this column.

Table 1: Distribution of mean values of retentive force obtained for Group I: Ball Attachment.

	Mean	Std. Deviation	F	P value
Baseline	11.6195	.80078	115.647	<0.001
Cycle 270	0.0133	.11400		

4. Table 2, 4, and 6

a) Please explain the meaning of these letters in the table footnote.

Table 2: Bonferroni post hoc analysis for Group I: Ball attachment.

(I) factor1	(J) factor1	Mean Difference	Std. Error	P value	95% Confidence Interval for Difference
		(I-J)			

b) Please explain the meaning of “*” in the table footnote.

baseline	cycle270	2.605*	.243	<0.001	1.980	3.232
	cycle540	4.991*	.425	<0.001	3.899	6.083
	cycle1080	5.808*	.452	<0.001	4.646	6.970

5. References/Citations

a) In the text, cite the references numerically (in round brackets) and consecutively in the order of appearance. They should follow behind the previous word. And there is a space between the previous word and reference.

E.g., “The First International Consensus Conference on Laparoscopic Liver Surgery was held in Louisville in 2008 (3).”

b) Reference 18 was not cited in the main text, please revise.

*Please note that it should be cited between 17 and 19.

c) Please add the citation for these studies at the end of the sentence.

164 values. ELsyad *et al* and Türk *et al* in their studies observed that the retentive strength between
 165 5-10 N is satisfactory enough to have an overdenture retentive. The present study found similar

6. Graphs

The graphs should be also cited as figures, please re-name them according to the order they appeared.

For example, Graph 1 was cited after figure 4, then it should be re-name as figure 5 and cited as figure5.

108 and 1080 pulls to displace the experimental overdenture from the model [Figure 4]. The
 109 dislodging cycles were synchronized to the use of the overdenture for 3 months, 6 months and
 110 1-year considering insertion/removal cycles were 3 times a day. The overdenture was placed
 111 back in position manually after every pull. The time interval between insertion/removal cycles
 112 was a minimum of 10 seconds to regain the elastic recovery of the elastic component in the
 113 metal housing. The force values as displayed on the computerized indicator for the given
 114 objectives were tabulated. The same procedure was repeated after only changing the elastic
 115 components of the metal housing six times for each group (n=6) and the results were tabulated.

116 **RESULTS**

117A. **Evaluation of retentive force for Ball attachment**

118 [Table 1]

119 [Table 2]

120 The evaluation indicated baseline retentive force values for ball attachments of 11.619 N.
 121 There was a gradual decrease in the retentive force values after 270 cycles, 540 cycles and
 122 1080 cycles. The loss of retentive force, when calculated on a percentage basis is shown in
 123 graph. [Graph 1] Bonferroni Post hoc analysis indicated a statistically significant difference.

Comment	Reply	Correction Line
Comment 1: Abstract - Original Article requires structured abstract and the following structure must be followed: Background, Methods, Results, Conclusions.	Reply: Require Structure Followed	Correction Line: Abstract (Page 1, line 15- 21)
Comment 2: Ia (Please revise all the data format. They should be written in “x.xx”, not “.xx”, please revise.)	Reply: All changes done for Tables with .xx to 0.xx have been changes	Correction: All changes done for Tables with .xx to 0.xx in Table document file
Comment 3: Table 1, 3, 5, and 7 Please provide the header of this column.	Reply: Header names are given for the row	Correction: Table 1, 3, 5, and 7 Header named as dislodging cycles
Comment 4: Table 2, 4, and 6	Reply: Meaning for (I)factor1 - Dislodging cycles	Corrections have been done accordingly in the table file and has been reattached

	<p>(J) factor1 - Different Dislodging Cycles (I)factor1 (J) factor1 were programmed in SPSS software which gives an output name, So I Have renamed the same (I)factor1 - Dislodging cycles (J) factor1 - Different Dislodging cycles</p> <p>Similarly for mean difference was of the two factors Thus I-J Mean Difference (I-J) changed to Mean difference title</p> <p>*- Means -(*p value less than 0.005 statistically significant) which has been mention below the table now</p> <p>Difference^b – superscript ^b was given by the Statistical application and is now removed</p>	
<p>Comment 5: References/Citations (in round brackets)</p>	<p>Reply: The required changes were completed i.e a) cite the references numerically (in round brackets) and consecutively in the order of appearance b) Reference 18, Revised c) citation for studies at the end of the sentence were added</p>	<p>Correction Line: Introduction (Page 2,3 Line 42, 44, 46, 49, 51, 52, 54, 57, 59, 63, 67, 69, 73) Method (Page 3,4 Line 94, 96, 99, 106, 108) Discussion (Page 5-7 Line 164(McGill), 168, 172, 176, 180, 183, 186, 189, 193, 198, 200, 207)</p>

Comment 6: Graphs	Reply: The graphs are cited as figures and re-named according to the order	Correction Line: (page 5 Line 134, 332, 363; Page 5 Line 142, 333, 366; page 6 line 151, 334, 372; page 6 line 156, 335, 375)