

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101/37453

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 00039411

Reviewer's country: Argentina

Science editor: Fang-Fang Ji

Date sent for review: 2017-06-21

Date reviewed: 2017-06-25

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

Figure 2, A and B, they are supposed to be measured at different levels, but results are the same in both figures.

Answer: Yes, you are right. This reads like this: A. The aortic measurements included area of 571.8mm² ; perimeter of 85mm at 0.2 mm below the level of annulus and at 4.1 mm below the level of aneurysm in B. As aortic annulus is a tubular structure, the perimeter and the area may not vary much just within 3.9 mm of distance.

The corrected version now with the red font is the change made in the sentence: **A. The aortic measurements included area of 571.8mm² ; perimeter of 85mm at 0.2 mm below the level of annulus, and also at 4.1 mm below the annulus and at the level of aneurysm in B.**

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 01204088

Reviewer's country: Japan

Science editor: Fang-Fang Ji

Date sent for review: 2017-06-21

Date reviewed: 2017-06-29

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input checked="" type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | | <input type="checkbox"/> Duplicate publication | |
| <input checked="" type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade E: Poor | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> No | <input checked="" type="checkbox"/> Minor revision |
| | | BPG Search: | <input type="checkbox"/> Major revision |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

Banga et al. described a patient with perimembranous interventricular septum aneurysm extending into the LVOT requiring apposition of the Edwards SAPIEN XT skirt at annulus with most of the valvular metallic frame in supra-annular position, and concluded that the present case is the first report of the utilization of TAVR procedure in a patient with septal aneurysm and need of higher aortic positioning with an Edward SAPIEN XT valve. Although this case report is interesting, there are several concerns for the manuscript. 1) There is a concern for conflict of interest. In the cover letter: I and the other authors have no financial or other interest concerning any products or testing or anything related to this manuscript. In the Disclosures in the text: Dr. Sudhir Mungee is in Speakers Bureau for Edwards Life sciences. The other authors have no conflicts to report. Please make sure about the problem. 2) Page 1, line 15-17. Showing the NYHA functional class and the pressure gradient and valvular area of the aortic valve in this patient will be appreciated for better understandings of the patient. 3)

References. There are only 4 papers in the list, and 3 of them are published before 2009. If possible, more recent and more adequate papers will be appreciated. 4) Page 1, line 22. and many others. A space will be required between 14.5 and mm.

Answer: 1. All the authors have no conflicts to report. The cover letter also shows the same too. Dr. Mungee is no more in the Speaker bureau of Edwards.

2. I have added the aortic valve area by planimetry.

3. Seven more including three more recent references have been added including:

1. Choi M, Jung JI, Lee BY, Kim HR. Ventricular septal aneurysms in adults: findings of cardiac CT images and correlation with clinical features. *Acta Radiol.* 2011;52:619–623.

3. Jain AC, Rosenthal R. Aneurysm of the membranous ventricular septum. *Br Heart J.* 1967;29:60–63.

4. Sharma M, Elmi F. Interventricular membranous septal aneurysm incidentally diagnosed during computed tomographic angiography in a patient with infrequent supraventricular tachycardia. *Clin Pract.* 2017 Jan 11; 7(1): 921.

5. Salazar Mena J. Echocardiographic detection of thrombus in an aneurysm of the interventricular membranous septum. *Rev Esp Cardiol.* 2004;57:898.

6. Yilmaz AT, Ozal E, Arslan M, Tatar H, Ozturk OY. Aneurysm of the membranous septum in adult patients with perimembranous ventricular septal defect. *Eur J Cardiothorac Surg.* 1997;11:307–311.

8. Carcano C, Kanne JP, and Kirsch J. Interventricular membranous septal aneurysm: CT and MR manifestations. *Insights Imaging* 2016; 7:111–117.



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11. Rojas P, Amat-Santos AJ, Cortés C, Castrodeza J, Tobar J, Puri R, Sevilla T, Vera S, Varela-Falcón LH, Zunzunegui JL, Gómez I, Rodés-Cabau J, San Román JA. Acquired Aseptic Intracardiac Shunts Following Transcatheter Aortic Valve Replacement: A Systematic Review. *J Am Coll Cardiol Interv* 2016; 9(24), 2527-2538.

4. Page 1, line 22. and many others. A space is made between 14.5 and mm and others too.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 00505382

Reviewer's country: Italy

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-07

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input checked="" type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

references should be updated; preoperative details about aortic valve disease should be presented; comorbidities and clinical presentation should be briefly discussed since patient has an STS PROM of 8-12%

Ans: Aortic insufficiency, previous CAD, Moderate COPD per PFT results, prior sternotomy/CABG have been mentioned.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 02446706

Reviewer's country: Netherlands

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-10

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input checked="" type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input checked="" type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

The case report is nicely presented. Only minor error found on page 2:Line 14: Please consider "paravalvular" instead of paravalular.

Answer: Page 2, Line 14; paravalular corrected to paravalvular.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 00259340

Reviewer's country: Spain

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-10

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input checked="" type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

The authors present a nice case of Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension treated with TAVI. The procedure was successful and I congratulate the authors for that. However, in order to report it I think we could take advantage of it and add some discussion points in the manuscript. - Brief comments on incidence, causes, types, outcomes and management for Interventricular Septum Aneurysm. - This condition, modifies the antithrombotic therapy or the follow-up Schedule?

Answer: The incidence, presentation, causes, treatment has been discussed in short. I have added first to paragraphs to discuss about septal aneurysm which includes incidence, causes, types, outcomes and management for Interventricular Septum Aneurysm, antithrombotic therapy and the follow-up Schedule.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 00227375

Reviewer's country: Japan

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-10

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

This is a rare case report about membranous interventricular septum aneurysm in the LVOT requiring TAVR. This manuscript is nicely structured and well written. I have no question about this manuscript.

Answer: No changes needed.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 02446694

Reviewer's country: Japan

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-11

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|---|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input checked="" type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input checked="" type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

The authors reported the patients with left ventricular outflow tract aneurysm, who underwent transcatheter aortic valve implantation (TAVI). This case report seems to be interesting. I think that the readers will be interest in the skill and important point of TAVI in the more aortic position. The authors had better emphasize these points more closely.

Answer: No changes needed.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 35101

Title: Transcatheter Aortic Valve Replacement in Membranous Interventricular Septum Aneurysm with Left Ventricular Outflow Tract Extension.

Reviewer's code: 01593993

Reviewer's country: Spain

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-14

| CLASSIFICATION | LANGUAGE EVALUATION | SCIENTIFIC MISCONDUCT | CONCLUSION |
|---|--|--|--|
| <input type="checkbox"/> Grade A: Excellent | <input checked="" type="checkbox"/> Grade A: Priority publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B: Very good | <input type="checkbox"/> Grade B: Minor language polishing | <input type="checkbox"/> The same title | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C: Good | <input type="checkbox"/> Grade C: A great deal of language polishing | <input type="checkbox"/> Duplicate publication | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D: Fair | <input type="checkbox"/> Grade D: Rejected | <input type="checkbox"/> Plagiarism | <input checked="" type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E: Poor | | <input type="checkbox"/> No | <input type="checkbox"/> Major revision |
| | | BPG Search: | |
| | | <input type="checkbox"/> The same title | |
| | | <input type="checkbox"/> Duplicate publication | |
| | | <input type="checkbox"/> Plagiarism | |
| | | <input type="checkbox"/> No | |

COMMENTS TO AUTHORS

This is an interesting case that may be helpful for the reader facing similar issues while implanting a TAVI. I would discuss further the reason why the authors selected this type of valve and whether other options may be also useful in this context. Minor issue: Image 3C: it is not clear for me whether this is pre-procedure or follow-up. It is difficult to distinguish where the valve is located or it is just pre-procedural calcified valve.

Answer: Now Sapien 3 is available which is new generation valve. At that time we had good experience and Sapien 3 was under research. The paper is not intended to emphasize the type of valve but is meant for understanding the feasibility of TAVR in LV outflow tract aneurysm.

This is the post procedure prosthetic aortic valve.