

Format for ANSWERING REVIEWERS



March 12, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 9397-review.doc).

Title: Drug-eluting stents and acute myocardial infarction: a lethal combination or friends?

Author: Shuji Otsuki, MD, Manel Sabaté, MD, PhD

Name of Journal: *World Journal of Cardiology*

ESPS Manuscript NO: 9397

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) RESPONSE TO REVIEWER 1:

General Comment: *Congratulations to the authors. The manuscript merits publication without modifications.*

My only suggestion could be to insert a few lines regarding the Stentys stent to avoid late malapposition and the MGuard stent to prevent distal embolization.

Response: We thank the Reviewer for this pertinent comment. In accordance with the Reviewer's comment, we have added the following sentence in **6) Glimpse into the future** (page 12, line 13-page 13, Line 9)

"New concept of stent platforms for STEMI

The self apposing stent has been developed to avoid stent malapposition, a potential trigger for stent thrombosis. In the APPOSITION II study, optical coherence tomography at 3 days after implantation

showed a lower rate of malapposed stent struts in the self-apposing BMS group than in the balloon-expandable group (0.58% vs 5.46%, $p = 0.001$). In the APPOSITION IV study, patients treated with a self-apposing SES had better apposition ($p=0.001$) and better coverage at 4-month follow-up than the balloon-expandable ZES (31.6% vs 3.8%; $p = 0.03$). ⁴⁹

The micronet-mesh-covered stent has been developed to prevent distal embolization. In the MASTER study, complete ST-segment resolution was significantly improved in patients treated with micronet-mesh-covered stents, compared with commercially available BMS or SES (57.8% vs. 44.7%; $p=0.008$). ⁵⁰

We have also added the following references:

47.van Geuns RJ, Tamburino C, Fajadet J, Vrolix M, Witzenbichler B, Eeckhout E, Spaulding C, Reczuch K, La Manna A, Spaargaren R, García-García HM, Regar E, Capodanno D, Van Langenhove G, Verheye S. Self-expanding versus balloon-expandable stents in acute myocardial infarction: Results from the apposition II study: Self-expanding stents in ST-segment elevation myocardial infarction. *JACC Cardiovasc Interv.* 2012;5:1209-1219

48.Van Geuns RJ. Randomized comparison between the STENYS Self-Apposing Sirolimus-Eluting Coronary Stent and a balloon-expandable stent in Acute Myocardial Infarction. Presented at TCT 2013, Transcatheter Cardiovascular Therapeutics conference in San Francisco, California.

http://www.stentys.com/file_bdd/annexes/1383066103_APPOSITIONIV-TCT2013RJvanGeunsFINAL.pdf. (accessed February 18 2014)

49.Stone GW, Abizaid A, Silber S, Dizon JM, Merkely B, Costa RA, Kornowski R, Wojdyła R, Maehara A, Dressler O, Brener SJ, Bar E, Dudek D. Prospective, randomized, multicenter evaluation of a polyethylene terephthalate micronet mesh-covered stent (MGuard) in ST-segment elevation

myocardial infarction: The MASTER trial. J Am Coll Cardiol. 2012

RESPONSE TO REVIEWER 2:

General Comment: *Interesting topic, of great everyday practical importance for cardiologists, heart surgeons and patients. The article comes to elucidate a gray area (how helpful are drug eluting stents?) troubling physicians who hold posts that require correct decision making. For this reason I recommend the acceptance of the paper. As I am not a native speaker, I would ask for an extra English language polishing.*

Response: Thank you for your kind review. Following your suggestion, we have had the manuscript reviewed by a native English language manuscript editor, Elaine Lilly, Ph.D. (Writer's First Aid).

RESPONSE TO REVIEWER 3:

General Comment: *It is a review article for DES treating STEMI. Generally, the article makes a good summary in this field. 1. The abbreviation of ST (stent thrombosis) will confuse with the ST of the term of ST-segment. 2. p7: sirolimus-eluting stents should use as abbreviation. (SES) 3. There is a lack of the pathophysiology of less stent thrombosis for 2nd generation DES in comparison with 1st generation DES and BMS.*

Response: We very much appreciate the Reviewer's comments and have made the following changes (page 7)

a) changed sirolimus-eluting stents to SES

b) decided not to abbreviate stent thrombosis

c) added the following sentence in section 5) **Safety and efficacy of second-generation DES in STEMI** (page 13, line 7-11)

"Pathological analysis also showed that late and very late stent thrombosis occurred less often in the EES (4%) than in SES (21%; $P = 0.029$) and PES groups (26%; $P = 0.008$). The percentage of

uncovered struts was lower in the EES (median = 2.6%) than in SES (18.0%; $P < 0.0005$) or PES groups (18.7%; $P < 0.0005$). Furthermore, EES was associated with less inflammation, no hypersensitivity, and less fibrin deposit than both SES and PES.⁵⁰

We have also added the following reference:

50. Otsuka F, Vorpahl M, Nakano M, Foerst J, Newell JB, Sakakura K, Kutys R, Ladich E, Finn AV, Kolodgie FD, Virmani R. Pathology of second-generation everolimus-eluting stents versus first-generation sirolimus- and paclitaxel-eluting stents in humans. *Circulation*. 2014;129:211-223

RESPONSE TO REVIEWER 4:

General Comment: *Well written paper dealing with a hot topic. The manuscript should be revised by an English mother-tongue expert.*

Response: Thank you for your kind review. Following your suggestion, we have had the manuscript reviewed by a native English language manuscript editor, Elaine Lilly, Ph.D. (Writer's First Aid).

RESPONSE TO REVIEWER 5:

General Comment: This reviewer admits that the manuscript is informative and well written.

Response: Thank you for this assessment of our work.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Cardiology*

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Manel Sabatés', is shown on a light-colored background.

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