Author's response to reviews

Title: Percutaneous treatment of spontaneous left main coronary artery dissection using drug-eluting stent.

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Version: 4 Date: 18 November 2014

Author's response to reviews: see over
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Version: 2 Date: 18 November 2014
Reviewer's report

Title: Percutaneous treatment of spontaneous left main coronary artery dissection using drug-eluting stent.

Version: 2 Date: 29 August 2014

Reviewer: Alfonso Jurado-Roman

Reviewer's report:

It is a very interesting case report of a spontaneous Coronary artery dissection (SCAD) affecting LM in a young woman. It is reasonable well written.

Major Compulsory Revisions (The author must respond to these before a decision on publication can be reached.)

Figure 3: The quality of the image does not permit to distinguish the features of the lesion. Although the clinical profile (young women, without coronary risk factors, acute coronary syndrome, no other coronary lesions) suggests the possible diagnosis of SCAD, a thrombotic
lesson cannot be discarded. Intracoronary image (IVUS, OCT) would have been very interesting. Describe in the text the angiographic findings that led you to final diagnosis and remark them in the image. If you can choose another angle of the angio (perhaps caudal views) bifurcation would be probably better shown.

Arrows have been added in FIG 3 to pinpoint the angiographic view of the intimal flap.

Figure 5: Explain the angles of projections in the text. Remark with arrows/asterisks your descriptions.

Done

Line 54: Define “primary”. If the Authors mean idiopatic or spontaneous, this term should be changed as it is expressed in the Title.

Done

Line 55: Confirm the real incidence of LM affection in SCAD (probably more than 1%).

Done.
Line 124 Confirm the real incidence of LM affection in SCAD (probably more than 1%).


Done

Line 145: as antithrombotic treatment is controversial, try to explain more accurately the medical management of your case and link it to your discussion.


Conservative medical therapy is a reasonable approach in asymptomatic, stable patients with distal dissection or conserved coronary flow. Medical therapy including aspirin, other antiplatelets, nitrates and beta-blockers has been successful in several cases with documentation of healing of the dissection on subsequent angiography. There are few data
on the use of low molecular weight heparin or glycoprotein IIb/IIIa inhibitors. Thrombolytic therapy is relatively contraindicated in SCAD due to the potential risk of worsening the dissection and contributing to expansion of the hematoma. Extension of dissection is possible (9), although successful use of thrombolysis has been described.

Line 187: CABG as the most frequent management: Perhaps cases as yours of STEMI due to LM SCAD are nowadays mainly treated by PCI because the hemodynamic situation. In stable patients there is a growing trend to conservative treatment because dissections often seal spontaneously. Confirm and actualize these data (reference 14 is probably obsolete, year 2000).

Done

Line 174: Discussion and specially revision of surgical management is too extensive.

Have been reduced

Minor Essential Revisions (The author can be trusted to make these.)
Line 56-58: “Although medical and...clearly defined”. Although the meaning of the sentence is understandable, try to improve the way to express it. It is better expressed in line 137.

Done

Line 60: Left Coronary territory. Maybe change this expression to “LAD-Cx bifurcation involvement”

Done

Line 85: “cardiac surgery consultation?”. Improve the expression.

Done

Figure 6: Very interesting image.

Line 103: If possible explain with some detail the reverse mini crush technique (2 lines).

Done

Line 109: Why don´t you perform follow up with MSCT Coronary angio? Perhaps in these patients with special vessel fragility, if no new symptoms or ischaemia are developed, CT can offer very good quality images and a safer profile compared with cardiac catheterization.
Alfonso Jurado-Román, Javier Andreu, Julio García Tejada, Maite Velázquez, Agustín Albarrán, Felipe Hernández, Leire Unzué, Juan Tascón. A complicated spontaneous left main coronary artery dissection. Is the initial conservative management safe in asymptomatic patients?


A follow up cardiac catheterization angiography was recommended (class IIb) after 6 months according to European Society of Cardiology guidelines for high risk PCI (unprotected LM).

Line 111: Conclusions? Did you mean discussion?

Changed

Line 155-158: The sentence starting with “The goals...diseccion” is redundant

Changed.
Line 161: Delete “high patency rates and”

Done.

Line 165: In the attempt to pass the wire to true lumen and avoid false one, do you think intracoronary imaging would be helpful? Try to remark it in your discussion.

Passing the wire into the false lumen may occur more easily in these relatively non-fibrotic arteries were the use of OCT or IVUS would be a powerful weapon of the interventional cardiologist`s arsenal.

Line 189: There are several cases of LM SCAD treated with stenting. However, due to the rarity of this entity, in my opinion it is very interesting to report all cases like this and describe the management that was used with detail.

Done
Reviewer's report

Title: Percutaneous treatment of spontaneous left main coronary artery dissection using drug-eluting stent.

Version: 2 Date: 19 September 2014

Reviewer: Alexandra M Sousa

Reviewer's report:

The authors present a very interesting and well documented case of myocardial infarction associated with spontaneous coronary artery dissection, but neither the theme or techniques addressed are entirely new. Also, some issues should be resolved before a possible publication.

- Major Compulsory Revisions

1. In the beginning of case description, patient’s previous medication, if any, should be stated.

   The patient was free of any medication previous to the dissection.

2. Why wasn’t the patient catheterized earlier? Even in the presence of a successful fibrinolysis it recommended to proceed with catheterization.
The patient was not transferred to a hospital with PCI-capability for pharmaco-invasive strategy at that time, for unknown reasons.

3. Did you consider the use of complementary techniques, such as IVUS or OCT, in confirming the diagnosis of coronary dissection in your case? These techniques and its value should also be addressed in the conclusions.

The diagnosis of a spontaneous coronary artery dissection was prompt, with these angiographic findings. The use of intravascular ultrasound (IVUS) or optical coherence tomography (OCT) was not plausible due to the emergency of the case.

- Minor Essential Revisions

4. In the second paragraph of conclusion, referring to pathophysiology, you repeat the “oral contraceptive” as a related factor (line 131 and 132/133).

Has been erased.

5. “Authors’ contribution” is duplicated. “Authors’ information” is missing.
Corrected.

6. The References should be revised according to the journal guidelines. Almost every reference presents a minor mistake.

Corrected.

- Discretionary Revisions

7. The prevalence of LMCA dissection is probably higher than what is stated in the conclusions. Please see a good review of 2010, of Vrints (Heart 2010;96:801-8).

Corrected.

**Level of interest:** An article whose findings are important to those with closely related research interests.

**Quality of written English:** Acceptable.

**Statistical review:** No, the manuscript does not need to be seen by a statistician.