Dear Editors:

Thank you for your letter and careful comments concerning our manuscript entitle “Intravascular ultrasound diagnosis of spontaneous coronary artery dissection in a patient with autosomal dominant polycystic kidney disease: a case report(Manuscript ID:60495)”. Those comments are all valuable and very helpful for revising and improving our manuscript, as well as the important guiding significance to our research. We have studied all comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the manuscript.

Point-by-point answers to the reviewers comments on " Intravascular ultrasound diagnosis of spontaneous coronary artery dissection in a patient with autosomal dominant polycystic kidney disease: a case report(Manuscript ID:60495)":

Reviewer #1:

We thank the reviewer for the in-depth study of our manuscript and his or her suggestion.

1. Do you think when should IVUS be performed after CAG?

Answer: We performed IVUS at the time of first angiographic. We believe that if there is any doubt about the coronary lesions, IVUS should be performed as early as possible, preferably at the time of the first angiography.

2. Page. 5, lines 104. “hormone therapy”. What kind of “hormone” is it?

Answer: The hormone therapy we want to emphasize was glucocorticoid therapy.

3. Page. 5, lines 106. What kind of “stress” is it?

Answer: What we want to emphasize is emotional stress.

4. Page. 6. lines 134. Should describe about blood pressure and lipid profiles.

Answer: Blood pressure at admission was 142/70mmHg. The low density lipoprotein cholesterol (LDL-C) was 3.32mmol/L.

5. Page. 1, lines 216-219. What is the reason why the authors performed IVUS for the patient on the view of risk and benefit?

Answer: The patient had a long history of ADPKD, and she visited emergency department because of sudden chest pain. However, the coronary angiography did not find clear signs of stenosis or dissection, so it was very important to perform IVUS to identify the patient's luminal conditions. At that time, the patient's vital signs were stable and there were no other life-threatening comorbidities, so IVUS examination was relatively safe.

6. Page. 1, lines 223. Did the authors evaluate the myocardial infarction using BMIPP scintigraphy?

Answer: We did not perform BMIPP scintigraphy to evaluate the myocardial infarction. After IVUS examination was performed to confirm the existence of coronary dissection, conservative drug treatment was conducted. Moreover, the patient's prognosis was relatively good, with rapid decline of myocardial injury markers, and no ejection fraction and structural movement abnormality indicated by cardiac ultrasound.

7. Why did the authors evaluate her as low-risk-patient?

First, the vital signs of the patient remained stable at the time of admission, except for chest pain. Secondly, the patient’s chest pain symptoms were quickly relieved. After the IVUS operation was performed to confirm the dissection, the patient did not have chest pain and other symptoms,

and no further abnormal conditions were indicated by ECG and echocardiography. Finally, the patient was well treated with conservative medication and had no symptoms such as chest pain.

EDITORIAL OFFICE'S COMMENTS

(1) Science editor:

Issues raised: (1) The authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s);

Response to (1): In response, we have provided the grant application form.

(2) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor.

Response to (2): We have provided the original picture in PPT format.

Company editor-in-chief:

(1)The title of the manuscript is too long and must be shortened to meet the requirement of the journal (Title: The title should be no more than 18 words).

Response to (1): We have rewritten the title to meet the requirements.

(2) Before final acceptance, the author(s) must provide the English Language Certificate issued by a professional English language editing company.

Response to (2): We have submitted English Language Certificate when we submitted the manuscript.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. Revised portion are marked in red in the paper. If there are any errors or omissions, please contact us immediately to make changes.

We appreciate for Editors' and Reviewers' warm work earnestly, and hope that the correction will meet with acceptance.

Once again, thank you very much for your comments and suggestions.

Sincerely yours,

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Department of Cardiology
Shanghai Tongji Hospital , Tongji University School of Medicine
No.389, Xincun Rd, Putuo District
Shanghai 200065, China
Email: 1911572@tongji.edu.cn

Re-review：

Author's answer to reviewer:

We are sorry for our insufficient reply to review's comments. This time, our team conducted a full discussion in order to answer reviewers' scientific doubts in detail.

Review's comments:

1.The title is not proper because of using a verb. For example, "The useful of intravascular ultrasound for the diagnosis of spontaneous coronary dissection with autosomal dominant polycystic kidney".

Author's reply: We have rewrite our title as: Spontaneous coronary artery dissection should not be ignored in patients with autosomal dominant polycystic kidney disease.

2.BACKGOUND: You described a combination of ACS and ADPKD as relatively rare. I think that it is not a proper explanation because of well-known evidence.

Author's reply: When autosomal dominant polycystic kidney disease (ADPAD) presents with acute coronary syndrome(ACS), the possibility of spontaneous coronary artery dissection (SCAD) should be highly considered.

We have rewrite our background as: Page 3 Line 47-49: When autosomal dominant polycystic kidney disease (ADPAD) presents with acute coronary syndrome (ACS), the possibility of spontaneous coronary artery dissection(SCAD) should be highly considered.

3.Do you think when should IVUS be performed after CAG?

Answer: We performed IVUS at the time of first angiographic. We believe that if there is any doubt about the coronary lesions, IVUS should be performed as early as possible, preferably at the time of the first angiography.

Response: Your answer is misleading. Your patient had shown no findings of abnormalities of the coronary arteries. Consequently, you had performed IVUS for her. I want you to emphasize that physicians must rule out SCAD if ADPKD patients complain of signs of ACS despite no findings of their CAG in the discussion. It is supposed that the prior probability is high from some case reports of SCAD with ADPKD.

Author's reply: We apologize for our confused answer. What we want to express is that although the coronary angiography results of ADPKD patients might be normal, it is very necessary to perform IVUS to exclude SCAD in these patients, and IVUS should be performed as early as possible.

We have added above text in our discussion: Page10 Line208-211: Although the coronary angiography results of ADPKD patients might be normal, it is very necessary to perform IVUS to exclude SCAD in these patients, and IVUS should be performed as early as possible.

4.Page. 5, lines 104. "hormone therapy". What kind of "hormone" is it?

Answer: The hormone therapy we want to emphasize was glucocorticoid therapy.

Response: If so, you should also correct hormone to glucocorticoid in the discussion.

Author's reply: We have correct hormone to glucocorticoid in the discussion.

5.Page. 5, lines 106. What kind of “stress” is it?
Answer: What we want to emphasize is emotional stress.
Response: If so, you should also correct stress to emotional stress in the discussion.
Author’s reply: We have correct stress to emotional stress in the discussion.

6.Page. 6. lines 134. Should describe about blood pressure and lipid profiles.
Answer: Blood pressure at admission was 142/70mmHg. The low density lipoprotein cholesterol (LDL-C) was 3.32mmol/L.
Response: I require more information about lipid profiles, and also BMI.
Author’s reply: High density lipoprotein cholesterol HDL cholesterol was 1.10mmol/L, total cholesterol was 4.07mmol/L, triglyceride was 0.82mmol/L, and BMI was 21.87kg/m2.
We have added above text into our manuscript: Page7 Line140-143: The low density lipoprotein cholesterol was 3.32mmol/L, High density lipoprotein cholesterol cholesterol was 1.10mmol/L, total cholesterol was 4.07mmol/L, triglyceride was 0.82mmol/L, and BMI was 21.87kg/m2.

7.Page. 1, lines 216-219. What is the reason why the authors performed IVUS for the patient on the view of risk and benefit?
Answer: The patient had a long history of ADPKD, and she visited emergency department because of sudden chest pain. However, the coronary angiography did not find clear signs of stenosis or dissection, so it was very important to perform IVUS to identify the patient's luminal conditions. At that time, the patient's vital signs were stable and there were no other life-threatening comorbidities, so IVUS examination was relatively safe.
Response: You should concisely describe the above mentioned in the discussion.
Author’s reply: We have modified our discussion as: Page9 Line 177-183: The patient had a long history of ADPKD, and she visited emergency department because of sudden chest pain. However, the coronary angiography did not find clear signs of stenosis or dissection, so it was very important to perform IVUS to identify the luminal conditions. At that time, vital signs of the patient were stable and there were no other life-threatening comorbidities, so IVUS examination was relatively safe and necessary.

8.Why did the authors evaluate her as low-risk-patient?
First, the vital signs of the patient remained stable at the time of admission, except for chest pain. Secondly, the patient’s chest pain symptoms were quickly relieved. After the IVUS operation was performed to confirm the dissection, the patient did not have chest pain and other symptoms, and no further abnormal conditions were indicated by ECG and echocardiography. Finally, the patient was well treated with conservative medication and had no symptoms such as chest pain.
Response: You should concisely describe the above mentioned in the discussion.
Author’s reply: We have modified our discussion as: Page11 Line 238-244: First, vital signs of the patient remained stable at the time of admission, except for chest pain.

Secondly, chest pain symptoms were quickly relieved. After the IVUS operation was performed to confirm the dissection, the patient did not have chest pain and other symptoms, and no further abnormal conditions were indicated by ECG and echocardiography. Finally, the patient was well treated with conservative medication and had no symptoms such as chest pain.

9.In addition, I recommend the reference "Autosomal dominant polycystic kidney disease
and coronary artery dissection or aneurysm: a systematic review"
Author's reply: We have added this reference (Reference 18) to our discussion.

Answering Re-reviewer

Dear Editors: Thank you again for your letter and careful comments concerning our manuscript entitle “Spontaneous coronary artery dissection should not be ignored in patients with autosomal dominant polycystic kidney disease (Manuscript ID:60495)”. We have studied all comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the manuscript.

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9. In addition, I recommend the reference "Autosomal dominant polycystic kidney disease and coronary artery dissection or aneurysm: a systematic review"

Author's reply: We have added this reference (Reference 18) to our discussion.

Author's reply to editor:

Please upload the approved grant application form(s) or funding agency copy of any approval document(s).

Author's reply: We have provided funding agency copy of approval document in attachment.

Please re-provide the original figure documents. All submitted figures, including the text contained within the figures, must be editable. Please provide the text in your figure(s) in text boxes; For line drawings that were automatically generated with software, please provide the labels/values of the ordinate and abscissa in text boxes; Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor.

Author's reply: We have provided original figure documents without any manipulation in PPT format.

Please make an audio core tip file describing your final core tip. Please submit audio files according to the following specifications: Acceptable file formats: .mp3, .wav, or .aiff Maximum file size: 10 MB

Author's reply: We have provided an audio core tip file in mp3 format. We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. Revised portion are marked in red in the paper. If there are any errors or omissions, please contact us immediately to make changes.

We appreciate for Editors' and Reviewers' warm work earnestly, and hope that the correction will meet with acceptance. Once again, thank you very much for your comments and suggestions. Sincerely yours, Xuebo Liu, MD Department of Cardiology Shanghai Tongji Hospital , Tongji University School of Medicine No.389, Xincun Rd, Putuo District Shanghai 200065, China Email: 1911572@tongji.edu.cn