

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 57393

Title: Diffuse coronary artery vasospasm in a patient with subarachnoid hemorrhage: A case report

Reviewer's code: 02641731

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: United States

Manuscript submission date: 2020-06-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-06-07 02:22

Reviewer performed review: 2020-06-08 05:24

Review time: 1 Day and 3 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

The authors reported a unique etiology of AMI in a patient with SAH leading to ST-segment elevation, diffuse triple vessel coronary artery vasospasm (CAV) and apical scar. Coronary angiogram revealed severe diffuse triple vessel stenoses secondary to CAV seen distally. Subsequent cardiac MRI was notable for apical non-viability and scar formation. The author's case report is actual and clinically relevant. However, several issues should be considered to assess the results in this paper. My comments are related to the following points: 1) Coronary angiography showed patent left main artery, but 100% occlusion of the mid to distal LAD and distal LCx. Did the authors try to administrate nitrates into the coronary artery to resolve the coronary spasm? 2) Ergonovine provocation testing was performed in order to diagnose CAV. Did the authors try to perform ergonovine provocation testing? 3) Beta-blockers were contraindication for CAV because of exacerbation of coronary spasm. Please discuss.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 57393

Title: Diffuse coronary artery vasospasm in a patient with subarachnoid hemorrhage: A case report

Reviewer's code: 04171210

Position: Peer Reviewer

Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: United Kingdom

Author's Country/Territory: United States

Manuscript submission date: 2020-06-06

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Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors present a case with presumed acute myocardial infarction due to diffuse coronary artery vasospasm in a Patient with subarachnoid haemorrhage (SAH). 1. Patients with SAH and presumed concomitant myocardial infarction are particularly difficult to assess: 1) dynamic troponin changes also occur in SAH; 2) dynamic ECG changes (including regional ST elevations) also occur in SAH. In most cases these patients will develop Takotsubo Syndrome (and develop chest pain). In your case Report you are describing apical ballooning which might also be a hint for Takotsubo Syndrome. 2. The scar in the MRI might be a chronic scar. Please provide further MR evidence of an acute myocardial infarction (T2 weighted Images or T2 mapping Images demonstrating oedema in the infarcted zone and not demonstrating typical Takotsubo pattern oedema). 3. For the distinction acute vs. chronic apical infarction: Are there any Images available Prior to this SAH showing no myocardial infarction. 4. How do you explain that you only had an "acute" septoapical myocardial infarction (100% occlusion of the mid to distal LAD) but no infarction in the distal LCx territory (100% occlusion of distal LCx territory). How can you be sure this was due to vasospasm. Was nitroglycerin applied during the invasive angiography with normalization of vessels?? 5. The windowing of Figure 4 is not optimal. Please provide LGE Images of the whole ventricle (including Lcx territory). In conclusion, my main Point is that you should better prove that this was an acute myocardial infarction and not a Patient with a chronic septoapical myocardial infarction with Takotsubo Syndrome on top due to SAH (which is more probable). Please discuss this aspect in your discussion and "prove" that the myocardial infarction is an acute one.