**Peer Review File**
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**Reviewer A**

The authors present an interesting study aimed to compare the MACCE and survival rate among patients undergoing SCVBG vs CE of the RCA. The authors cite a clinical trial in pigs, but I believe that coronary vein bypass graft is not a well-established surgical technique with very little data reported in humans.

Anyway, please find below my comments and questions on your manuscript:

Comment 1: The patients in this study had three-vessel disease, but the grafts used were only the internal thoracic artery and the great saphenous vein. On the other hand, the rate of bilateral internal thoracic artery use was very low for. It is not described how the revascularizations were performed. What is the number of peripheral anastomoses in both groups?

Reply 1 :Since most patients are elderly, in order to reduce postoperative incision complications, the use of unilateral internal mammary artery can increase blood supply to the sternum and promote incision healing. Except for the anterior descending artery, the other diseased coronary arteries were revascularized by saphenous vein sequential bridge anastomosis. The number of graft anastomosis in both groups was 3-4.

Comment 2: You mentioned “Selective coronary vein bypass grafting was performed for patients who are unable to undergo CE, or where results of CE were not satisfactory” What percentage of patients underwent CE and SCVBG performed at the same time?

Reply 2: No patient received both CE and SCVBG. The meaning mentioned in the article is: the right coronary artery stenosis is severe, and the patients who cannot undergo CE or the patients with poor results after CE are treated with SCVBG. So this is a two-group comparison situation, no patients received CE and SCVBG at the same time.

Comment 3: I still would prefer a redoing of the Kaplan-Meier curves and add number of patients at risk and individual patient information on censoring.

Reply 3: Survival analysis has been performed using Kaplan-Meier curves. The results are in the text Page11: Long-term survival was not significantly different following selective coronary vein bypass grafting or coronary endarterectomy. At the same time the statistical analysis has been modified.

Comment 4: The number of references on which to base grades on SCVBG is too small.

Reply 4: There is very little research on SCVBG and most SCVBG are selected middle cardiac vein as the target vessel. However, there are also very few studies on middle cardiac vein

arterialization. That's why the number of references on SCVBG is very small.

**Reviewer B**

Comment 1: Selective coronary vein bypass grafting as an anastomosis to the coronary vein system needs to be explained in the abstract as well?
Reply 1: Because SCVBG is not a routine operation. Normal coronary artery bypass grafting is to anastomose blood vessels to coronary arteries instead of coronary veins, so it needs to be explained in the abstract.

Comment 2: Did the patients suffer from stabile angina or acute coronary syndrome?
Reply2: Most patients had stable angina, and a small number of patients had unstable angina.

Comment 3: Did the patient suffer from multivessel disease or was there an isolated disease of the RCA?
Reply 3: All patients had three-vessel disease.

Comment 4: Were all patients discussed in the heart team?
Reply 4: Of course, all patients had been discussed in the heart team.

Comment 5: What is the role of coronary intervention in a diffused RCA?
Reply 5: Diffuse RCA cannot be treated and improve myocardial blood supply through coronary intervention.

Comment 6: Could the patients have been treated medically alone?
Reply 6: Medical treatment alone only in patients who would not benefit from coronary intervention and coronary artery bypass grafting.

Comment 7: It would have been much better to compare the proposed new method of selective coronary vein bypass grafting with the gold standard of revascularisation therapy, according to the recent guidelines, not with coronary endarterectomy, which is a historic treatment of coronary artery disease.
Reply 7: The main research of this paper is that diffuse RCA cannot be treated and benefited by conventional bypass grafting (the gold standard of revascularisation therapy), so as to discuss the treatment effect between coronary endarterectomy and selective coronary vein bypass grafting on diffuse RCA.

Comment 8: Anticoagulation and antithrombotic therapy is not mentioned.
Reply 8: All patients were treated with oral dual-antibody therapy after operation, that is, aspirin + Plavix/ticagrelor.