Reviewer's report

Title: Rare Early Prosthesis Obstruction after Mitral Valve Replacement: A Case Report and Literature Review

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Reviewer: Tadashi Kitamura

Reviewer's report:

The authors report a 42-year-old female patient who presented with subacute obstruction of the mitral valve prosthesis 3 months after MVR with a 25-mm SJM mechanical valve. The patient was admitted to the intensive care unit and was intubated. A transthoracic echocardiography showed immobility of the both leaflets without overt vegetation. At reoperation, the mitral prosthesis was replaced with a 27-mm SJM mechanical valve and the explanted prosthesis showed extensive pannus formation.

First of all, I would like to congratulate the authors on the outstanding outcome of this serious complication after MVR.

There are quite a few grammatical inaccuracies, inappropriate uses of words and typos in the text. The whole manuscript needs to be proofread by a native English speaker.

Late prosthetic valve obstruction due to pannus is related with several factors, as is described by the authors. Early postoperative obstruction, on the other hand, is normally caused by technical issues. Recently transesophageal echocardiography (TEE) is routinely performed during cardiac surgery in most institutes and TEE could have been able to pick up some leaflet obstruction in the current case as well.

Minor Essential Revisions

1. The operative findings in the initial MVR;
   Was TEE performed?
   How severe was the annular calcification?
   How tight was the 25-mm prosthesis?
   Was posterior mitral leaflet and its subvalvular apparatus resected as well?
   Was there any technical difficulty in valve implantation?
   In which position was the prosthesis implanted, para- or supra-annular?
   In which position was the prosthesis implanted, antianatomical or anatomical?

2. The strategy of the reoperation;
   Why did the authors choose a larger prosthesis?
Was any further annular debridement performed?
Was the valve rotated from the initial position?

This case report certainly is of importance because it is rare to have prosthetic valve obstruction in three months after uneventful MVR. However, it lacks take-home message from a technical and practical point of view. I would like the authors to add some discussion about prevention of this rare but life-threatening complication. I am also interested in the late outcome of this patient after re-MVR.

I, therefore, would recommend that this paper be accepted after some minor essential revisions and proofreading.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Declaration of competing interests:

I declare that I have no competing interests.