Reviewer's report

Title: Mid-term Results in Patients Having Tricuspidization of the Quadricuspid Aortic Valve

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Reviewer: Jong BUm Choi

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This manuscript is emphasizing fixation of sinotubular junction for aortic valve surgery. Until now on, many surgeons have made well-designed tissue leaflets that can make a good coaptation in aortic root. However, in the dynamic aortic root the well-maden tissue leaflets did not work because they are fixed in size in size-changeable aortic root, unlike the real leaflets. After aortic cross clamping is released, the sinotubular junction is dilated, coaptation of the leaflets splits open and is distorted. For this problem, fixation of the sino-tubular junction is a very important new conception to maintain coaptation and its height without regurgitation. Most of current aortic valve or root surgeries, such as the aortic valve replacements, the stentless valves and even the re-implantation technique (David root reimplantation), have fixed the aortic valve annulus, but the aortic valve reconstruction surgery preserves the annular motion, contraction and dilatation. All human cardiac valves have two functions of closing and opening of valve leaflets and contraction and dilatation of valve annulus. All surgical techniques and prostheses have only leaflet closure and open function without annular motion. It’s a very new surgical conception. As the result, the sinotubular junction fixation is an alternative to fall the valve housing (sewing ring and struts) off the artificial valve, preserving the aortic annular function. However, the long-term durability has to be carefully followed-up, as the authors mentioned that.

The manuscript is acceptable.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I have financial relationship with the company or their products.
No conflict of interest. No stocks.
'I declare that I have no competing interests'. 