Reviewer’s report

Title: Hegar-Based Method for Aortic Valve Replacement in Multiple Valve Surgery

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Reviewer: Henning Lausberg

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It is an interesting idea proposed in the manuscript. However, I cannot grasp the need and purpose of this procedure. Especially in calcified annuli, any manipulation of forced manoeuvres in the LVOT and/or aortic root can lead to serious damage. I am very uncomfortable of exposing the mitral valve properly while a massive and rigid metal instrument is in place. Also, I would be afraid of the risk of annular rupture.

I would rather recommend placement of the sutures in the anterior circumference of the mitral valve meticulously to avoid any plication effect. I agree that small annuli especially in rheumatic disease can be challenging, but considering few important issues additional manipulation that might make the procedure more complex (xclamp time!!). These are placement of correct mitral sutures (see above), transmural placement of sutures at least in the non-coronary sinus of the aortic root and considering root enlargement techniques when suitable. Furthermore, a 17 mm bileaflet mechanical valve would have offered a correct EOAI in both patients thus having kept the procedure simple.

Unfortunately, the further clinical course of both patients is unknown as are the postoperative echocardiographic follow-up data.

What is meant by MEAN CPB and xclamp time since only data of individual cases are presented?

Although I would not recommend this technique, congratulations on a (presumably) positive outcome!!

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Needs some language corrections before being published

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