

Rebuttal to: choice of prosthetic valve in a developing country

Iqbal H Jaffer,^{1,2} Richard P Whitlock^{2,3}

¹Thrombosis and Atherosclerosis Research Institute, Hamilton, Ontario, Canada

²Division of Cardiac Surgery, McMaster University, Hamilton, Ontario, Canada

³Population Health Research Institute, Hamilton, Ontario, Canada

Correspondence to

Dr Richard P Whitlock,
Population Health Research
Institute, DBCVSR, I,
Room 1C1-5B, 237 Barton
St. E., Hamilton, Ontario,
Canada L8L 2X2;
richard.whitlock@phri.ca

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We read with interest the counterpoint suggesting that the best choice for the patient is a bioprosthetic valve. We acknowledge many of the points made by the authors,¹ most importantly that the decision of valve prosthesis is a shared process between healthcare providers and patients. However, there several points that we feel need clarification.

The authors highlight the need for anticoagulation in the context of atrial fibrillation (AF), but then suggest that the differences in the International Normalised Ratio (INR) targets for patients with a mechanical heart valve and those in AF are substantially different. Looking at the evidence, however, would seem to suggest that the guidelines supporting higher anticoagulation for mechanical valves in the mitral position are based on small studies of low quality, and the strength for this recommendation is weak.^{2–5} We would argue that, in the context of all other aspects of anticoagulation medicine, whether it is AF or venous thromboembolism, higher risk does not confer higher anticoagulation targets.^{6–7} We give the example of the CHADS₂ score where a CHADS₂ score of 2 or 6 has an annualised stroke risk of 4 and 18.2%, respectively. Despite this, the INR target with a vitamin k antagonist for both types of patients is 2–3.⁶ We would further argue that more contemporary studies such as those from Dong *et al*⁸ have demonstrated that a lower INR in patients even with double valves is acceptable and safe as long as it is supplemented with low-dose aspirin—a drug that is widely used and available.

With respect to the argument from the authors about life expectancy, while we would not disagree with their analysis regarding the factors relating to life expectancy, we would question the importance of this discussion with regard to the patient at hand. Most of the literature supporting the early degeneration of bioprosthetic valves concentrates on the process of calcification that is higher in younger patients and is not related to the perceived potential life expectancy of any patient.⁹ That notwithstanding, even assuming a life expectancy of an Indian male to be 62.2, that is nearly another 18 years to be expected, wherein the data suggest,

this patient would require a much more risky reoperation.¹⁰ To that end, we would still encourage this patient to undergo a mitral valve replacement with a mechanical heart valve.

Twitter Follow Richard Whitlock at @RichardWhitloc2 and Iqbal Jaffer at @ihjaffer

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