Discussion to: Impact of reintervention after index aortic valve replacement on the risk of subsequent mortality

Dr William Shi, MD, PhD, Dr Alberto Pochettino, MD, Dr Tsuyoshi Kaneko, MD

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Discussion to: Impact of reintervention after index aortic valve replacement on the risk of subsequent mortality

Presenter: Dr. William Shi, MD, PhD

Invited Discussant: Dr. Alberto Pochettino, MD

Corresponding Author: Dr. Tsuyoshi Kaneko, MD

Affiliations:
1) Department of Cardiovascular Surgery, Northwell Health, New York, NY.
2) Surgery, Mayo Clinic, Rochester, MN
3) Division of Cardiothoracic Surgery, Barnes-Jewish Hospital, Washington University in St Louis, ST Louis, MO.

Correspondence:
Tsuyoshi Kaneko, MD
Chief of Cardiac Surgery
Barnes-Jewish Hospital,
Washington University in St Louis,
St Louis, MO, 63110
Email: kaneko@wustl.edu
Twitter Handle: @TsuyoshiKaneko

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Dr. Alberto Pochettino (Rochester, MN):

Thank you. I appreciate your talk. And although here we mostly have talked thus far in young people, the mean age of your group is 73 years of age, which is more of the average AVR population that we deal with. And I think in light of what has been discussed through the session, this brings out that repeat intervention is not benign. We just heard from the previous talker that we can do one procedure, then a valve-in-valve, then another procedure, and another valve-in-valve. And every time you intervene, according to your data, you lose some life. There is a price to pay in ultimate mortality. So, my first question is, why, for example, do you think that valve-in-valve reintervention has the same risk of long-term mortality as surgical reintervention? So that's the first question. Why do you think that is?

Dr. William Shi (New York, NY):

Yeah. Well, I think it's difficult to tell from our data, but I would suspect that it's related to, first of all, there are procedural risks. Even though it's a pretty noninvasive procedure, things can go wrong, of course. But I wonder if prosthesis-patient mismatch, that whole Russian doll effect, is probably driving that longer-term reduction in survival.

Dr. Pochettino:

My second question is, obviously, have you changed or are you going to change your approach to aortic valve replacement vis-à-vis choice of tissue versus mechanical valve as well as, as was discussed by many others, size of the valve? It may be that the valve-in-valve increased mortality is that you start with a small surgical prosthesis that you only can treat in a limited fashion when you do a valve-in-valve. Then you're left with a patient-prosthesis mismatch. So, you have traded structural valve deterioration for patient-prosthesis mismatch, and you still have a mortality increase. What are your thoughts about future approach, how you're going to do?

Dr. Shi:

Yeah, absolutely. That's an excellent question. Certainly, at Brigham, now, knowing what we know, we're much more aggressive with setting up that initial SAVR for a successful valve-in-valve TAVR. So that means, essentially, being more liberal with root enlargement. We're certainly really avoiding putting in 21s, at least, certainly avoiding putting in 23s for younger, larger patients, and being liberal with root enlargement, and really setting up for that valve-in-valve TAVR so that they can have a longer survival. And of course, especially in patients who are probably in their early 60s, if they're really well, we certainly highlight the potential benefits of mechanical valves. Of course, there are pressures for us to offer tissue valves, but we nonetheless reinforce that. And of
course, more recently, we, like everyone else, are becoming more interested in using the Ross procedure in these patients.

Dr. Pochettino:

I mean, I agree with your approach. I mean, I would make one last additional plea, is that aortic root replacement, looking at the Gott data from Hopkins, almost approximates the Ross long-term outcomes. So, if you have a young individual who is okay with a mechanical valve, I would be encouraging those of us that can do that operation safely to think root rather than just the valve. Again, the theoretical issue of having all of this stuff that causes thromboembolic complication on the outside and the data that is very compelling that a root replacement in a young person does very well.

Dr. Shi:

Thank you.