Discussion to: Alternative minimally-invasive surgical explantation techniques for failed transcatheter mitral valve repair devices

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Unidentified Speaker 1:

Dr. George, Columbia University.

Dr. Isaac George (New York, NY):

All right. First of all, I want to thank you for really a superb report, which I had the pleasure of reading beforehand. I really enjoyed reading it. It really highlights kind of what we want and everything for great research, which is investigation, validation, and some really, really good innovative techniques. I think the topic is very timely. The need to repair these valves in the era of maybe some overzealous edge-to-edge therapy is very important. And so, I think it meets a critical need in this current time. In my experience, a lot of times the valves have been either so damaged or so encapsulated that I just frankly have not bothered trying to repair them. And other than acute failures, I've just gone ahead and replaced them. But I think your manuscript really highlights the need to take some more time, even in older patients, potentially, if you can really get the clip out and do a good repair. So, I think it's going to hopefully prompt some more of that. I think one of the nice features of the report is the experience with the Pascal device, which is still in trial here, and I think very few people have explanted, as opposed to the clip device, which I think a lot of us have experience with. So, I think it's going to be very widely read. I think it's a great paper. I recommend everyone taking a look at these videos. As for the visualization, I have a couple of quick questions. The visualization is excellent in the videos you've shown, and you've done primarily minimally invasive operations. Have you done any through sternotomy, which I suspect is a little more challenging?

Dr. Serdar Akansel (Berlin, Germany):

Actually, we think that such operations can be also performed with full sternotomy. Actually, if I don't exceed my time, I can mention our last report regarding operative management after failed TMVr procedures. In this cohort, we have evaluated totally 69 patients after failed TMVr, and 23 of these patients were operated in full sternotomy. But actually, as you said, true to minimally invasive setting, it's easier to obtain a better visualization.

Dr. George:

My next question was about some of the numbers that you reference, how many have you explanted and how many were you able to repair either using this technique or other techniques?

Dr. Akansel:
So, in this paper, we have evaluated 46 patients undergoing minimally invasive mitral valve repair after failed TMVr procedures. And we have grouped the patients in FMR and DMR. According to our experience, the old patients with FMR should undergo a mitral valve replacement. And DMR, in DMR group, we have considered mitral valve repair, whether it can be performed. Our decision-making process was based on the AML integrity and whether the PML is highly damaged. In this cohort, 5 of 10 patients in DMR group could be operated with mitral valve repair. And the other patients had received mitral valve replacement. And let me say one thing, the encapsulation of the device may complicate the damage-free explantation and making mitral valve repair impossible or unfeasible, as you said. So, that's why the interval between TMVr procedure to surgery is important and decisive.

Dr. George:

Go ahead, Mike.

Unidentified Speaker 1:

If you have another question, go ahead.

Dr. George:

Last question. Again, congratulations on a great report. Which one's easier to remove?

Dr. Akansel:

Actually, the Pascal was found to be easier for explantation. And let me say that, actually, since the Pascal has a [inaudible] locking system, soft looking system, and it can be also these techniques can be also combined with cold saline solution to explant easier.

Unidentified Speaker 1:

It's really impressive work, although I will say that was in the U.S., the repair rate is less than 10% after it failed here. And I tell you the ones I've done didn't look like that last one where it just popped out. The only ones I've been able to repair are people that have Barlow's and they have so much leaflet that I can cut it out and I still have enough leaflet to rebuild, but it is very interesting. I do think we need to take more time. But speaking of time, we are now over.
Dr. Akansel:

Thank you.