Discussion to: Contemporary experience with the Commando procedure for anterior mitral anular calcification

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Dr Gösta B. Pettersson (Cleveland, Ohio). It’s a difficult question, and we have a few different approaches to it. I would say that Dr Johnston is more decisive beforehand. He looks carefully at the computed tomography scans and, in particular, patients who had chest radiation. He has a preference for the anterior approach, which gives him better exposure and better management of calcium. I’m a little bit the opposite way. I usually presume I can do it without doing a Commando. And then I approach it—open the aorta, take the aortic valve out, debride the calcium, and see what I have and what I need to do to get it back together. And, if I’m hesitant, I may go the Commando way. If I think, “Yeah, I can do this in the normal double-valve way,” then I do that and support the intervalvular fibrosa.

Dr El Khoury. When you are operating yourself in those patients, do you always plan for a Bentall surgery? Or no? You go in for aortic valve replacement instead and the mitral. Isn’t it easier and more systematic to approach this problem with separating the coronary buttons first and doing the radical excision of all the calcium? Or you just open the aorta, as in a standard aortic valve replacement case?

Dr Pettersson. In my experience, I’d say the difficult points here are the two trigones and how hard they are, and how difficult they are. The intervalvular fibrosa part is the easiest part. It is the connection between the anulus when you come up to the trigones. How calcified is that? How hard is that? How well have I debrided? How well can I see the corners? Those are the things that go through my mind. I carry the patch a little bit down so I’m sure that I have a good grip in the lower corner of the patch. And then I can even, say, sew the patch to the ventricles to the side. I do all kinds of things to get around that.

Dr El Khoury. I’m asking this question in particular in regards to patients who have undergone radiation. The root itself tends to be so calcified and too small, and in order to have good exposure, maybe sometimes it’s good to immediately go for a Bentall—

Dr Pettersson. Oh, yes, absolutely. I probably misunderstood you a little bit. I certainly agree with that. If you don’t like the root, then take it apart and replace it. I wouldn’t hesitate to do that.
Dr El Khoury. Does the presence of posterior mitral annular calcification influence your technique?

Dr Pettersson. Yeah. I don’t know if I want to comment on that because I have a totally different opinion than what we’ve heard in the previous talks. [laughter].

Dr El Khoury. Okay, got it.

Dr Pettersson. I debride the calcium with a rongeur, and then I support the anulus using a strip of felt or, if the debridement creates a wide groove, cover that with a pericardial patch.

Dr David Adams (New York, NY). Gösta, I don’t want you to worry. I have a completely different opinion than what you’ve just presented so, you’re allowed to disagree. [laughter].

Dr Pettersson. Thank you.

Dr El Khoury. The choice of prosthetic material. I sometimes feel that replacing with a mechanical valve perhaps will allow us to have less obstruction of the left ventricular outflow tract. What do you think about that?

Dr Pettersson. I think the mechanical valve has the advantage that it’s hemodynamically better in the mitral position, and you can downsize the mitral valve, which of course makes these things a little bit easier, and so I do whatever the patients want in this situation. But I want to have a good balance between the two valves, and I think the worst thing is to really oversize the mitral valve. Then you get yourself into trouble.

Dr El Khoury. Do you think that calcium resection is beneficial?

Dr Pettersson. Yes.

Dr El Khoury. When you debride everything, does that influence late/long-term prognosis?

Dr Pettersson. I don’t know the answer to that question. Probably yes.

Dr Sulaiman Hasan (Albany, NY). Thank you. I enjoyed the presentation, Dr Pettersson. My question is about calcification. So you’ve made the incisions for the Commando, and where are you going to sew your patch, it’s calcium. Does this kind of increase the risk of things like paravalvular leak or bleeding around the patch? Or would that make a difference in your decision as to what kind of operation to do, where there’s calcium at the edges?

Dr Pettersson. I think it does, and I think you’d need to really think about the corners, the trigones. The amount of calcium in the two trigones is really what decides what I appreciate as the difficulty of the operation, and how much to debride, and when to stop debriding. How to anchor the patch laterally in the lower part. Where you begin the patch, how to anchor. That’s the key to the success.

Dr Adams. Gösta, thank you so much for presenting this courageous series. We would need a group like yours to tell me randomized data where you could do either one and you chose one or the other to convince me. First of all, you can’t do this at the same time as a double valve. That’s not possible unless there’s some selection because it’s a bigger operation. It truly is. And I don’t know whether you’re going transseptal on the mitral or interatrial groove.

How many people in this room have not done a Commando in the last 12 months or 2 years or 3 years? I’ll join you. I do a lot of double-valve surgery, a lot of radiation heart disease, and a lot of calcification. And, usually, if there’s a will, there’s a way. I do agree with Gébrine that committing to a root procedure is often one of the steps because the root’s very small. But it’s another way to handle it, even in our own group. Each one of us has a different approach to the same disease. But it shows you that if you have experience, and you work in a group that really does this a lot, you can do it quite safely. Thank you so much for your presentation.

Dr Pettersson. Thank you.

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