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Key Words: coronary artery revascularization, hybrid revascularization, long-term follow-up, MIDCAB

Discussion



Dr Gianluca Torregrossa (New York, NY). It is a pleasure to have the opportunity to discuss this outstanding article representing your own experience with this technique that now you master and are presenting with 20 years' data.

I have a few disclosures before starting my presentation. The first is that I am Italian, as is Dr Reposini, and the second one is that I am highly convinced that MIDCAB is the future of our procedure in coronary artery disease management.

How has your patient population changed throughout these 20 years? You currently work in Brescia, which is less than 1 hour door to door from the hospital of Antonio Colombo.



Dr Alberto Reposini (Brescia, Italy).

Yes, we live close to a very aggressive interventional cardiologist (Dr Colombo will forgive me), so we are forced to give the patient the maximum minimally invasive procedure possible in competition with PCI stenting. Cardiologists such as Antonio Colombo believe there is no room for cardiac surgery anymore. We just give the patient a message style, save the Ryan soldier, save at least the LAD. So that's the way we started. At the beginning, in 1997, the LAD was not in the guidelines for PCI, so it was easier to propose a surgical solution to that.

Dr Torregrossa. These are multivessel disease bypass cases treated with a hybrid procedure, or at least in your last year's experience, this is the subset of patients. Now that you have this technique in your hands, how many patients have you seen coming from the catheter lab, a patient with proximal LAD disease, stentable disease in a second vessel, and low SYNTAX score? How many of these patients have been referred to you because of your ability with this technique?

Dr Reposini. All our patients are, let's say, stolen from the catheter lab because they are not surgical patients who have been transformed in hybrid. They are patients who normally should be treated with multiple stents. But whenever the cardiologists realize that you can do a very good job on the LAD in a minimally invasive way with a MIDCAB, they at least call you for implanting the thoracic artery on the LAD and complete the revascularization with stents.

Dr Torregrossa. My second question is about your results. I was impressed by a 98% follow-up completed, and particularly I would like to mention the more than 600 angiograms or CT scans in patients with 10 years of follow-up. Different than a bypass with a sternotomy and on-pump, the hybrid approach forces and exposes the surgeon to review their own data and detailed angiography. This is something that a sternotomy bypass surgeon a lot of times doesn't have or is not exposed to this. So what did these 600 angiography or CT follow-ups tell you, and specifically those 36 thoracic arteries that had a problem in the follow-up?

Dr Reposini. Yes, you are right, we are probably the most controlled surgeons in the coronary surgery community, because, of course, any thoracic artery that you implant is sooner or later controlled by an angiogram, versus a complete surgical revascularization, which is done once forever and nobody checks anything. When you do a combined procedure, of course you control the thoracic artery. The majority of LITA stenoses were probably due to an harvesting problem at the beginning of the experience in which the retractor was not deep enough to

harvest all the thoracic artery to its origin. We didn't face any anastomotic problem, because from the LAD we always see the contrast medium going up with a good anastomosis. We faced a lot of problems because of subcritical

stenosis of the LAD, and sometimes during the angiographic control, we found an occluded LITA and no stenotic LAD. So probably before the fractional flow reserve, many LAD stenoses have been overestimated.

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