

Corrado Tamburino, MD

A European pioneer of left main intervention shares his perspective on important information for interventional cardiology practices worldwide.

What were some of your favorite moments of the recent Transcatheter Cardiovascular Therapeutics (TCT) meeting in San Francisco? What do you think was the most important take-home message?

As usual at TCT, there was plenty of top-quality research information relevant for our daily practice. Data presented from the STACCATO trial reinforced my notion that the transapical approach should be avoided in patients undergoing transcatheter aortic valve implantation (TAVI). TAVI should remain an option for high-risk patients until the results of ongoing trials such as the SURTAVI or PARTNER II become available. In addition, there is no doubt that TAVI is a feasible, effective, and now durable option for patients who are not candidates for surgery.

I was very interested by the debate on the emerging issue of longitudinal stent compression, a potential complication with newer-generation stent platforms. Also, it seems from the TRIGGER-PCI trial that platelet-function testing is still not ready for prime time as a tool to guide antiplatelet therapy. Finally, as Director of Cardiology at the Ferrarotto Hospital, I was personally proud to see that one of my coworkers, Dr. Davide Capodanno, was the recipient of this year's Thomas J. Linnemeier Spirit of Interventional Cardiology Young Investigator Award.

How do guidelines for the use of percutaneous coronary intervention (PCI) differ between the United States and Europe?

It seems that the new version of the recently released United States guidelines for PCI share more than one thing in common with the European version released 1 year ago. In particular, I see a lot of emphasis on the need for multidisciplinary consensus on revascularization strategies, and as a pioneer of left main intervention in my country, I am particularly satisfied in seeing that left main PCI is no longer necessarily a class III recommendation.

What is your protocol for assessing patients with left main artery disease and deciding on a course of treatment?

All patients receive a comprehensive assessment by means of several available prognostic tools, which are

useful for depicting a comprehensive profile of the patient. These include the SYNTAX score (an angiographic algorithm to grade the complexity of the coronary vasculature), the EuroSCORE (a clinical tool to assess the impact of comorbidities), and the Global Risk Classification, which is the combination of both. The case is then discussed with the heart team in order to reach a consensus on the best revascularization strategy.



Which factors appear to be most relevant in determining which patients may be more likely to experience major adverse events after distal left main PCI?

Personally, I believe that the key factor is plaque distribution. Plaque not involving the entire bifurcation is more easily treated, regardless of the number of stents implanted. Other factors that contribute to decision making in left main revascularization include clinical presentation, lesion location, intended strategy, bifurcation angle, and SYNTAX score.

Which factors should interventionists screen for in order to predict higher mortality rates among patients undergoing TAVI for severe aortic stenosis?

To date, no properly designed TAVI risk scores are available; therefore, the only methods to accomplish an objective risk stratification are the Society of Thoracic Surgeons score and logistic EuroSCORE, which are calibrated to predict surgical risk. Clinical experience has shown that these score algorithms tend to overestimate the real procedural risk. As a consequence, the best way to predict higher mortality rates after TAVI is to look at each single patient and consider the factors that clinical evidence has shown to be correlated with higher mortality, such as frailty, postprocedural moderate or severe paravalvular leak, chronic kidney disease, and heart failure.

How does TAVI affect mental health in terms of quality of life and why?

Several studies have shown that TAVI leads to an improvement in quality of life concerning both mental and physical status. This procedure is able to preserve a high degree of independence at midterm follow-up. The less-invasive

(Continued on page 69)

(Continued from page 70)

nature of the procedure and the fast recovery are two of the main factors that influenced these outstanding results.

At this time, which strategies seem to be the most promising for treating complex coronary chronic total occlusions (CTOs)?

The most promising techniques seem to be the antegrade penetration strategies with the new soft polymeric wires, such as the mini-STAR technique and the retrograde penetration technique, when the anatomical lesion characteristics favor this approach (ie, suitable collateral circulation, tapered distal CTO cap, unfavorable antegrade anatomical characteristics, etc.).

Can you describe the mini-STAR technique and explain how it is used as a bailout strategy for PCI of CTOs?

In the mini-STAR technique, a new generation of soft polymeric wires is employed. Usually, an Asahi Fielder FC wire (Abbott Vascular, Santa Clara, CA) is forced against the tough proximal cup of the occlusion, and the soft wire assumes the J-shape configuration, making a loop that penetrates the occlusion through a subintimal plane and re-entering in the distal true lumen where the wire finds less resistance offered by the tissue. In the bailout strategy, when the conventional antegrade approach (ie, single or parallel wire techniques) fails, an over-the-wire device, usually a microcatheter, is advanced with a soft polymeric wire (ie, Asahi Fielder FC) and pushed as previously described. The mini-STAR technique may also be used when most of the CTO body is crossed with a conventional antegrade strategy.

Can you tell us about some of the clinical trials in which you are currently participating?

We are going to start enrollment in the EXCEL trial shortly. This will be an exciting trial studying left main disease in patients with low or intermediate SYNTAX scores. We are also involved in several pharmacological trials, such as the ACCOAST, TAO, PAGASUS, SIGNIFY, and others.

In your opinion, what has been the most groundbreaking data/literature to come out of 2011?

The focus is on the PARTNER trials now, in my opinion. The early and midterm data are impressive. TAVI is a real groundbreaking technology, but I also expect promising results from mitral valve interventions. ■

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INDEX OF ADVERTISERS

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SCAI 2012.....	59
www.scai.org/scai2012	
St. Jude Medical	8
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