

AN INTERVIEW WITH...

Alec Vahanian, MD

Dr. Vahanian shares his thoughts on the updated ESC/EACTS guidelines and the ongoing evolution of valvular intervention.



What do you think is the most significant change included in the updated 2017 European Society of Cardiology (ESC)/European Association for Cardio-Thoracic Surgery (EACTS) guidelines on management of valvular heart disease?

In regard to transcatheter interventions, the most important changes in comparison with the 2012 ESC/EACTS document were as follows. For transcatheter aortic valve replacement (TAVR), we differentiated the groups of symptomatic patients with severe aortic stenosis (AS) as either low risk or non-low risk and no longer consider there to be an intermediate-risk group. In the low-risk group, without other factors that may contraindicate surgery, the best option is surgery. For the other patients, the heart team decides a treatment strategy according to the individual characteristics of the patient. Within the guidelines, we provide a table suggesting the main factors to be taken into account in this decision-making process.¹ This approach stresses the role of the heart team and the multifactorial nature of the decision beyond the classic risk scores.

TAVR also appears for the first time as a reasonable treatment in cases of bioprosthesis degeneration if this alternative option is chosen by the heart team. Finally, guidance is provided for the follow-up of patients after TAVR, according to a recent ESC/European Association of Percutaneous Cardiovascular Interventions position paper. Overall, these main messages in these ESC/EACTS guidelines are quite similar to those in the American College of Cardiology/American Heart Association (ACC/AHA) recent update.²

In terms of MitraClip (Abbott Vascular) use, this therapy may still be considered in primary mitral regurgitation (MR) in those at very high risk. In patients with secondary MR, the procedure may be considered in those at high risk when it is not “futile” and if the anatomy is acceptable. A differentiation is also made according to the level of left ventricular ejection fraction (LVEF). If the LVEF is > 30%, the heart team will choose between

surgery or MitraClip. If the LVEF is < 30%, the choice will be between medical therapy, surgery, MitraClip, or a left ventricular assist device/transplantation.

We did not make any recommendation concerning the other valves or devices because of the limited evidence available to date.

As one of the principal investigators of the French MITRA-FR study, can you give us an overview of the study thus far?

The design of the study has been published in *EuroIntervention*.³ To summarize, 288 patients have been recruited, and the study will be presented this August during the ESC annual congress in Munich, Germany.

You wrote for us nearly 10 years ago on the topic of sinus and direct annuloplasty for mitral valve repair. Do you still view it as a feasible option for treating MR?

In brief, the technique has been used in several hundreds of patients, which confirmed its feasibility and safety. However, solid scientific evidence for its efficacy is still lacking. Ongoing randomized trials, such as the ACTIVE study evaluating the Cardioband device (Edwards Lifesciences) and the CARILLON United States investigational device exemption trial examining the Carillon device (Cardiac Dimensions), will hopefully provide an answer. A potential indication could be to use this technique in combination with MitraClip for treating secondary MR.

What is currently the greatest challenge in assessing and treating multiple valve disease?

Regarding transcatheter intervention, there is limited evidence concerning the treatment of patients with multiple valve disease. No recommendations can be made at this time. In patients with severe MR and tricuspid regurgitation (TR), the experience is very limited and shows that transcatheter intervention is doable and safe. The challenges are related to the suboptimal results currently seen with the tricuspid devices, as well as the timing of

(Continued on page 73)

(Continued from page 74)

the tricuspid intervention. In the future, it is likely to be the most frequent indication for combined intervention, similarly to how this occurs in surgery.

In patients with AS and severe MR, combined or mostly sequential TAVR and percutaneous mitral edge-to-edge repair have been demonstrated to be feasible. The indications will be for patients with severe primary MR with anatomy suitable for MitraClip use. The challenges will be to establish the best strategy, which is likely to be TAVR first, procedure timing, and safety of the combination therapy.

Finally, in patients with AS and mitral stenosis (MS), the experience is very limited. The main challenge will be to evaluate the feasibility of valve implantation in mitral annular calcification, which is the most frequent etiology of MS in these patients. It will remain a niche.

Transcatheter interventions will probably play an important role in the future in MR+TR, AS+MR, and AS+MS after further development of the techniques and close evaluation to refine indications and strategies. The costs induced by the combination of transcatheter therapies will also be a concern.

Your center has been among the first in your country, or continent, to perform various novel transcatheter valve interventions. Which one had the most profound and immediate impact on patient care?

If I'm speaking about in terms of global impact, it still remains percutaneous mitral commissurotomy, which has had a major impact worldwide. TAVR will no doubt become the default approach in patients with AS, as it is the most frequent valve disease in the Western world. Mitral valve repair has a major impact on the treatment of high-risk patients with MR. Valve-in-valve implantation in the aortic position, and on a smaller scale in mitral position, as well as the valve-in-ring approach are very useful options for the care of high-risk patients.

How does an integrated approach to cardiology improve interaction between colleagues, as well as doctor-patient relations? In what ways does the use of imaging play a role here?

The new ESC/EACTS guidelines concur with the ACC/AHA guidelines to stress the role of heart valve centers where all the therapies are available on site and where the heart team may choose the best option according to the patient's characteristics. Imaging capacities are key here for patient selection and also for procedural guidance. As a consequence, the "structural teams" must have dedicated training in cardiac imaging, and research

should establish the most appropriate imaging techniques to enhance efficacy and also safety of the procedure for patients and physicians.

It is also important that the patients be informed and actively participate in the therapeutic decision. ■

1. Baumgartner H, Falk V, Bax JJ, et al. 2017 ESC/EACTS Guidelines for the management of valvular heart disease. *Eur Heart J*. 2017;38:2739-2791.
2. Nishimura RA, Otto CM, Bonow RO, et al. 2017 AHA/ACC focused update of the 2014 AHA/ACC guideline for the management of patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2017;70:252-289.
3. Obadia JF, Armoiry X, Lung B, et al. The MITRA-FR study: design and rationale of a randomised study of percutaneous mitral valve repair compared with optimal medical management alone for severe secondary mitral regurgitation. *EuroIntervention*. 2015;10:1354-1360.

Alec Vahanian, MD

Professor of Cardiology

University Paris VII

Paris, France

alec.vahanian@gmail.com

Disclosures: Consultant to Abbott Vascular, Edwards Lifesciences, and Mitraltech Ltd.