

Letters

TO THE EDITOR

Age and Outcomes in TAVR Patients

Are We Barking Up the Wrong Tree?

We read with great interest the recent analysis from the prospective SwissTAVI Registry by Attinger-Toller et al (1). The investigators described a linear relationship between increasing age and prevalence of all-cause mortality, stroke, and pacemaker implantation after transcatheter aortic valve replacement (TAVR). For their purpose, they divided patients into 4 groups on the basis of age (<70, 71-79, 80-89, and >90 years) and investigated the occurrence of all-cause mortality at 1 year as well as of a series of secondary endpoints (1).

However, the clinical application of this important finding is controversial. Age is a gross estimate of patients' clinical condition and risk. In addition, it is not actionable. Therefore, it is unlikely to be used per se as a gatekeeper for TAVR eligibility, especially for older patients with no feasible alternative. On the contrary, frailty, whose occurrence is linearly correlated with age, has been demonstrated as a major driver of prognosis after TAVR (2), and most of its substrates, such as malnutrition and inactivity, are actionable. To this end, it was recently shown that frail patients undergoing radial balloon aortic valvuloplasty and a subsequent prehabilitation program aimed at frailty reduction were able to reduce their frailty at the time of TAVR and improve their prognosis afterward (3).

Therefore, improving frailty status before TAVR could be the right way to improve clinical outcomes, especially in older patients. Further randomized trials are needed to confirm this hypothesis.

Antonella Scala, MD
Carlo Tumscitz, MD
*Simone Biscaglia, MD

*Cardiovascular Institute
Azienda Ospedaliero
Universitaria S. Anna
Via Aldo Moro 8
44124 Cona, Italy



E-mail: bscsmn@unife.it

<https://doi.org/10.1016/j.jcin.2021.05.024>

© 2021 Published by Elsevier on behalf of the American College of Cardiology Foundation

The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

REFERENCES

1. Attinger-Toller A, Ferrari E, Tueller D, et al. Age-related outcomes after transcatheter aortic valve replacement: insights from the SwissTAVI registry. *J Am Coll Cardiol Interv.* 2021;14(9):952-960.
2. Afilalo J, Lauck S, Kim DH, et al. Frailty in older adults undergoing aortic valve replacement: the FRAILTY-AVR study. *J Am Coll Cardiol.* 2017;70(6):689-700.
3. Tumscitz C, di Cesare A, Balducci M, et al. Safety, efficacy and impact on frailty of mini-invasive radial balloon aortic valvuloplasty. *Heart.* 2021;107(11):874-880.

RESEARCH CORRESPONDENCE

Impact of Tricuspid Valve Morphology on Clinical Outcomes After Transcatheter Edge-to-Edge Repair



Several registry studies reported survival benefits from transcatheter tricuspid valve (TV) interventions (1), where edge-to-edge transcatheter TV repair (TTVr) has been the most commonly used. Recent anatomic investigations of TV morphology demonstrated that a 3-leaflet configuration (57.5%) is the most common TV configuration, followed by a 4-leaflet configuration (42.5%) (2). A complex TV morphology with a 4-leaflet configuration may prevent sufficient TR reduction; therefore, its clinical implication for TTVr needs to be elucidated. Thus, the aims of the present study were to describe the morphological characteristics of TV, and to assess the impacts of TV morphology on procedural results and clinical outcome in edge-to-edge TTVr.

We analyzed patients who underwent edge-to-edge TTVr for severe TR at the Heart Center Leipzig at University of Leipzig between July 2016 and September