pre-procedural ICE followed by MDCT, good correlation was found in the aortic annulus measurements (2). A randomized study demonstrated the feasibility of ICE-guided TAVR, and found good correlation between the ICE and TEE guidance in 25 patients under general anesthesia (1).

The present investigation is first to prospectively evaluate the safety and feasibility of ICE-guided TF TAVR without endotracheal intubation. The salient findings of the study are: 1) ICE is safe and feasible in selected patients and can be performed without major complications; and 2) intraprocedural ICE can detect paravalvular leak and help guide necessary therapy. With continued interest and emphasis on using conscious sedation for TAVR procedures, consideration of ICE as a primary intraprocedural imaging tool becomes very relevant. Present-generation 3-dimensional ICE probes can be used for volumetric imaging; however, in the present configuration, cross-sectional measurement of annular size is difficult due to the limited field of view of 22°. A recent article on recommendations for intraprocedural imaging acknowledges that ICE is comparable and an attractive alternative to TEE for TAVR (3). In addition to providing imaging guidance, ICE obviates the necessity for endotracheal intubation, shortens the procedural time, and avoids the complications of general anesthesia and TEE (4).

The small number of patients limits our single-center study, and the results will need to be confirmed in a larger population. The study is also limited due to selection bias because the patients were carefully screened and selected. There was no control cohort in this study, and hence, the incremental value and cost-effectiveness of ICE cannot be established. In conclusion, ICE-guided TF TAVR without endotracheal intubation is a viable option in selective patients who are deemed appropriate by the multidisciplinary team.

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FIGURE 1 Example of Paravalvular Leak Demonstrated on ICE

(A) Moderate leak (arrow) immediately after the valve deployment. (B) The leak (arrow) became mild after post-dilation with a balloon. ICE = intracardiac echocardiography.

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REFERENCES

Acute MI and Contrast-Enhanced CMR: We Need the Whole Map of the Archipelago, Not Just Half of It!

We read with great interest the article by Jablonowski et al. (1) showing that contrast-enhanced cardiac magnetic resonance (ce-CMR) overestimates infarct size at 6 h post-reperfusion compared with pathology and that infarct imaging timing by ce-CMR is critical. Although this is not an entirely new finding, the careful and meticulous work performed by the authors demonstrates the rapidly changing nature of acute infarction and reperfused myocardial...
Letters to the Editor

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REFERENCES

THE AUTHORS REPLY:

We thank Dr. Schaaf and colleagues for their interest in our work (1). The responses to their questions are as follows:

Dr. Schaaf and colleagues comment on why changes in the myocardium at risk (MaR) do not occur during the first week, in parallel with infarct size and extracellular volume (ECV). Independent of MaR, we demonstrated that infarct size by late gadolinium enhancement cardiac magnetic resonance (CMR) is larger acutely than on day 7 compared with histopathology using triphenyltetrazolium chloride staining, and this results in different salvage acutely and on day 7 (1). However, when salvage is determined with triphenyltetrazolium chloride as the infarct reference and MaR from T2-weighted (T2w) CMR, the results are similar at both time points (1). Thus, an overestimation of MaR in the acute phase is unlikely. Furthermore, T2w CMR has been validated against myocardial single-photon emission computed tomography.