

for a more aggressive approach to optimizing the aortic valve. We look forward to additional studies regarding the impact of more subtle valvular lesions in this growing patient cohort.

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Commentary: Stop the leak before it floods

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As our collective experience in the management of continuous flow left ventricular assist devices (CF-LVADs) matures, we are identifying that clinical entities that were previously believed to be unimportant are indeed very important. Perhaps not at the immediate time of surgical invention, although over time. This is a benefit that we have as surgeon-scientists and clinical investigators in following our patients longitudinally to track their long-term outcomes and improve the quality of our care.

Tanaka and colleagues¹ provide their longitudinal experience of following LVAD patients for more than a dozen years to provide insights into the influence of uncorrected mild aortic insufficiency (AI) and the progression of heart failure. What we have known for a while is that moderate



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CENTRAL MESSAGE

Tracking the influence of seemingly minor items and continuously re-assessing our surgical approaches, mantras, and outcomes are what enable us to evolve our techniques and improve outcomes for our patients.

to severe AI in CF-LVADs portends a worse clinical outcome in terms of heart failure admissions and overall survival.² The progression of the AI with the CF-LVAD has been hypothesized to be related to turbulent blood flow in the root,³ potentially associated with outflow graft location and angle of anastomosis. Recognizing the importance of the influence of moderate to severe AI on CF-LVAD outcomes has led to most addressing the AI by repairing the aortic valve with a central coaptation stitch (ie, Park's stitch) or aortic valve replacement with reasonably equivalent results.⁴ Due to concerns related to

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risk of oversewing the aortic valve with pump stoppage or thrombosis, that practice has generally been abandoned.

In the current study from Tanaka and colleagues,¹ we see the effects of even mild AI on long-term outcomes. The article is well written and incorporates propensity matching strategies to work toward a true evaluation of the influence of AI. What we see is that the AI can progress and has a significant influence on heart failure readmissions and functional status. Although there was no significant change in overall survival, the readmissions and heart failure management needs represent an effect on patients and the overall health system. This important observation emphasizes that seemingly minor details or changes can compound over time. Tracking the influence of the minor items and continuously reassessing our surgical approaches, mantras, and outcomes are what enable us to evolve our processes and improve outcomes for patients. Nevertheless, the best

approach to manage mild AI, how to balance risks of additional bypass time and cardiac arrest on surgical outcomes, and the role (if any) of transcatheter aortic valve replacement will likely be debated for years to come.

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Commentary: Two roads diverged in a yellow wood...

Asvin M. Ganapathi, MD, and
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As winter fades away and spring begins, we look forward to fresh flowers, time outdoors, and the time-honored tradition of high school yearbooks. Coupled with awkward photos of high schoolers, playful, serious, and with deliberate body language, are the immortal senior quotes. For some it was a witty quip, and for others just a joke, but for many it was an attempt to be serious and show one's pensive side.

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Asvin M. Ganapathi, MD (left), and Nahush A. Mokadam, MD, (right)

CENTRAL MESSAGE

The management of mild aortic insufficiency at the time of LVAD implantation remains controversial. A randomized trial will be required to determine the best treatment strategy.

Among the common thoughtful quotes is from Robert Frost's "The Road Not Taken": "Two roads diverged in a wood, and I—I took the one less traveled by, And that has made all the difference."¹ Frost notably also describes how both paths appear similar and laments that in choosing one, he will likely not travel the other.