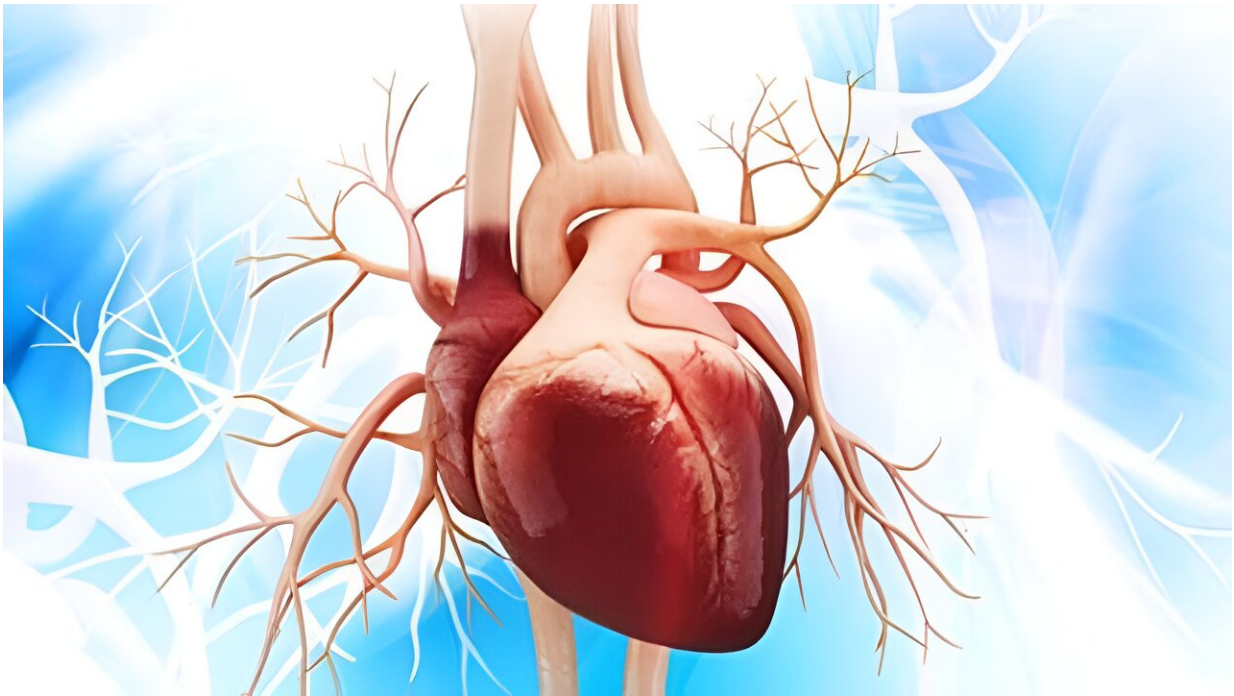


ACC: AI-based video biomarker detects aortic stenosis progression

April 8 2024, by Elana Gotkine



A video-based artificial intelligence (AI) biomarker (Digital Aortic Stenosis [AS] Severity index [DASSi]) can detect severe AS development and progression among patients undergoing echocardiography or cardiac magnetic resonance imaging, according to a study published online April 6 in *JAMA Cardiology* to coincide with the annual meeting of the American College of Cardiology, held from April

6 to 8 in Atlanta.

Evangelos K. Oikonomou, M.D., D.Phil., from the Yale School of Medicine in New Haven, Connecticut, and colleagues deployed DASSi to [patients](#) with no AS or with mild-to-moderate AS at baseline to identify development and progression of AS in a cohort study. A total of 12,599 participants were included in the echocardiographic study: 8,798 from the Yale New Haven Health System (YNHHS) and 3,801 from the Cedars-Sinai Medical Center (CSMC).

The researchers found that higher baseline DASSi was associated with faster progression in aortic valve velocity ($AV-V_{max}$; per 0.1 DASSi increment, 0.033 and 0.082 m/s per year in YNHHS and CSMC, respectively), with values of 0.2 or greater associated with a fourfold to fivefold higher aortic valve replacement risk compared with values of

Citation: ACC: AI-based video biomarker detects aortic stenosis progression (2024, April 8) retrieved 17 May 2024 from <https://medicalxpress.com/news/2024-04-acc-ai-based-video-biomarker.html>

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