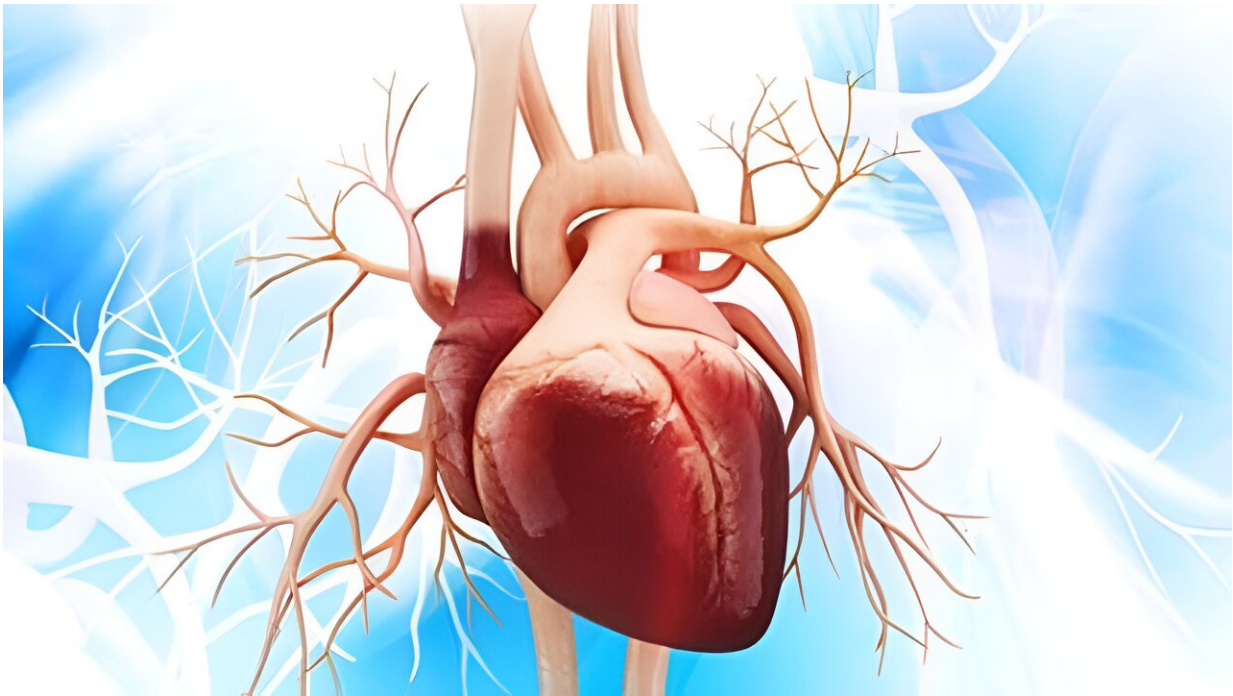


ACC: AI-based video biomarker detects aortic stenosis progression

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 2 May 2024 from

<https://medicalxpress.com/news/2024-04-acc-ai-based-video-biomarker.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.