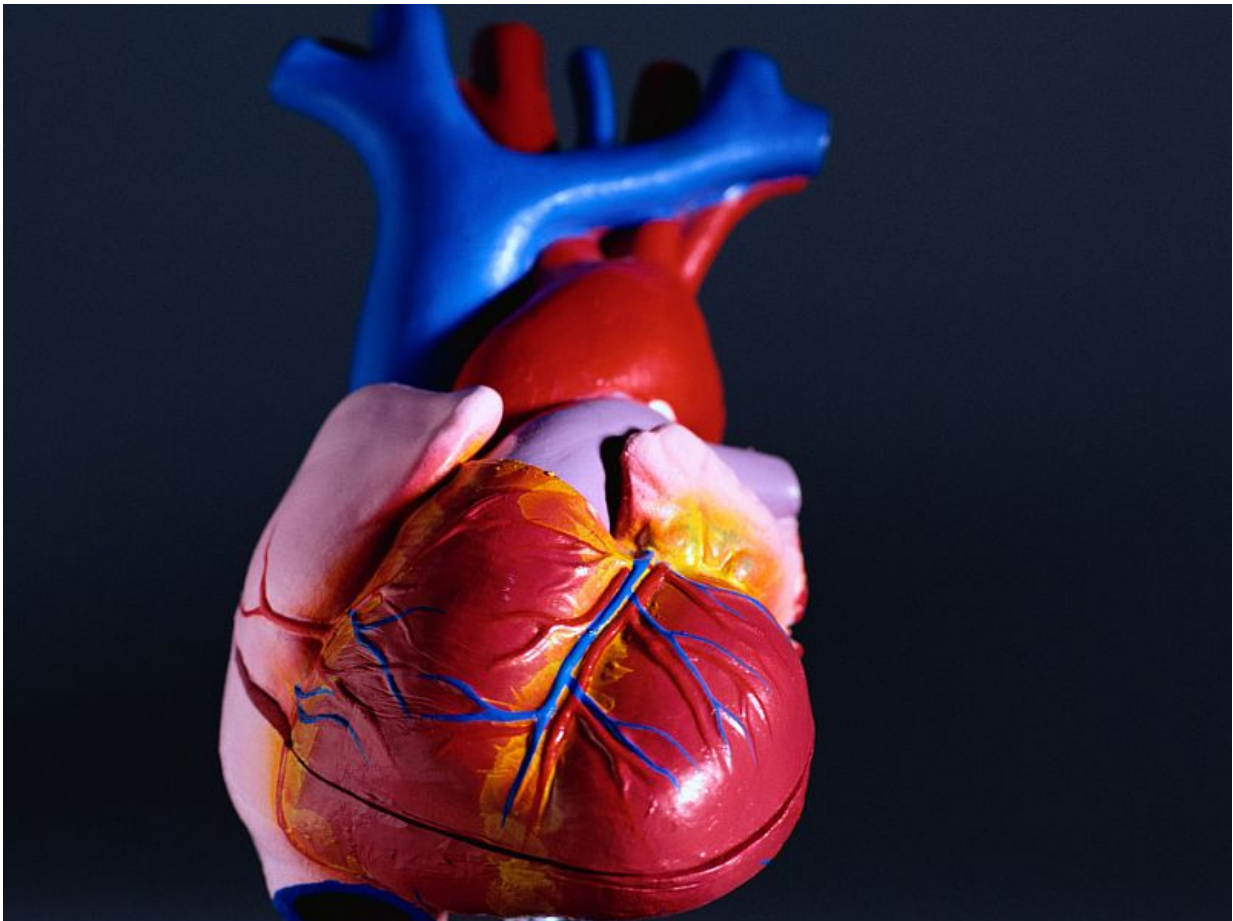


Von Willebrand factor multimers predict regurgitation in TAVR

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(HealthDay)—Assessment of defects in high-molecular-weight (HMW)

multimers of von Willebrand factor or point-of-care assessment of hemostasis can monitor aortic regurgitation during transcatheter aortic-valve replacement (TAVR), according to a study published recently in the *New England Journal of Medicine*.

Eric Van Belle, M.D., Ph.D., from the Centre Hospitalier Universitaire in Lille, France, and colleagues enrolled 183 patients undergoing TAVR. Additional balloon dilation was conducted to correct aortic regurgitation after initial implantation. At baseline and five minutes after each step of the procedure, HMW multimers and the closure time with adenosine diphosphate (CT-ADP) were measured. The use of CT-ADP was validated in a second cohort of 201 patients.

The researchers found that HMW multimers normalized in 137 patients without aortic regurgitation after the initial implantation. Normalization occurred in 20 [patients](#) with aortic regurgitation for whom additional balloon dilation was successful, but did not occur in the 26 with persistent aortic regurgitation. A CT-ADP value of more than 180 seconds had 92.3 percent sensitivity, 92.4 percent specificity, and 98.6 percent negative prediction value for aortic regurgitation; values were similar in the validation cohort. Values for HMW multimers and CT-ADP at the end of TAVR correlated with one-year mortality in multivariable analyses.

"The presence of HMW-multimer defects and a high value for a point-of-care hemostatic test, the CT-ADP, were each predictive of the presence of aortic [regurgitation](#) after TAVR and were associated with higher mortality one year after the procedure," the authors write.

More information: [Abstract](#)

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