

Study examining a novel index of coronary artery stenosis presented

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A novel non-hyperemic index of coronary stenosis severity called resting full-cycle ratio (RFR) was found to be diagnostically equivalent to instantaneous wave-free ratio (iFR) in the VALIDATE RFR study. The results were presented today at EuroPCR, the annual meeting of the European Association of Percutaneous Cardiovascular Interventions, by Ziad A. Ali, MD, DPhil, and simultaneously published in *EuroIntervention*.

RFR, which is not yet approved for use in the United States, measures the ratio of the [pressure](#) at the point of absolute lowest resting diastolic pressure (Pd) compared to aortic pressure (Pa) during the cardiac cycle. It measures the pressure difference in the cardiac cycle without the need for an ECG and regardless of timing within the cardiac cycle. iFR is measured during a specific segment of diastole, the "wave-free period" where it is assumed that coronary flow is maximal and resistance minimized.

"Results from the VALIDATE RFR study indicate that RFR could be used as an alternative to iFR to measure blood flow and has the potential to identify pressure-based stenosis severity independent of timing within the cardiac [cycle](#)," said Dr. Ali, Director of the Angiographic Core Laboratory at the CRF Clinical Trials Center and Director of Invasive Imaging and Physiology at the Center for Interventional Vascular Therapy at NewYork-Presbyterian/Columbia University Irving Medical Center. "Additional research is needed to determine whether these differences will translate to superior clinical utility."

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