

New biomarker for heart failure identified

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Blood levels of resistin, a hormone produced by fat cells, can independently predict an individual's risk of heart failure, cardiologists at Emory University School of Medicine have found.

Their findings were presented Nov. 12 at the American Heart Association Scientific Sessions conference in New Orleans.

"This is one of the strongest predictors of new-onset heart failure we've been able to find, and it holds up even when you control for other biomarkers and risk factors including high blood pressure and diabetes," says Javed Butler, MD, MPH, associate professor of medicine and director of heart failure research at Emory University School of Medicine.

The finding comes out of the Health ABC (Aging and Body Composition) study, sponsored by the National Institute on Aging of the National Institutes of Health. The Health ABC study followed 3000 elderly people in the Pittsburgh and Memphis areas over seven years starting in 1998.

Although scientists don't know the exact function of resistin, it appears to be associated with both inflammation and insulin resistance, says Vasiliki Georgiopolou, MD, a post-doctoral research fellow with Butler who presented these findings. "Recent laboratory studies have also shown that resistin decreases the ability of rats' heart muscles to contract," she adds.

In the Health ABC study, the risk of new onset heart failure increased by 38 percent for every 10 nanograms per milliliter increase in resistin levels in blood. Resistin was a stronger predictor of heart failure risk than other inflammatory markers linked to heart disease, such as C-reactive protein, the researchers found.

"Considering the increasing number of people who are obese or have diabetes, very many of them are going to be at some level of risk for heart failure later in life," Butler says. "The value of a marker such as resistin may be in accurately identifying among this large population of at-risk individuals who is at the highest risk and then targeting interventions to those people."

Source: Emory University

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