

THE PLAC TEST: A New Blood Test to Identify Patients at Risk of Heart Attack and Stroke

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Heart Disease and strokes are primarily caused by disease within the blood vessels of the heart and the brain (atherosclerosis/hardening of the arteries). Multiple risk factors increase an individual's risk of developing heart disease and stroke including diabetes, high blood pressure, smoking, high cholesterol and obesity. These risk factors contribute to inflammation within the walls of blood vessels and this inflammatory process directly causes the atherosclerosis.

Testing

Two simple blood tests are available to help identify patients with active inflammation within their blood vessels. The CRP (C-reactive protein) blood test is an inflammatory marker and has been shown to identify patients at higher risk of heart attacks. The CRP marker is not specific to blood vessels inflammation, however, and may give falsely positive results in patients with other types of active inflammation such as arthritis or infections.

The Plac Test is a new blood test that also measures active inflammation in blood vessels. The Plac Test measures an inflammatory enzyme called lipoprotein-associated phospholipase A2 that is produced by white blood cells within the atherosclerotic blood vessel. This enzyme is specific for blood vessels with active atherosclerosis and does not increase with other inflammatory diseases such as arthritis.

Recommendations

Current recommendations for patients with an elevated Plac Test is to more intensely treat their traditional risk factors and to prescribe aspirin daily. Also, more aggressive treatment of their cholesterol disorders can lower the Plac Test and hopefully prevent heart attacks and strokes.

The "Preventive Cardiology Clinic" is committed to preventing heart attacks and strokes. The Plac Test identifies patients at higher risk of these adverse events and is a major tool in helping us to achieve this goal.