Blood Test Assesses Heart Attack Risk

Inventor: Kenneth Mann and Saulius Butenas
The University of Vermont, Office of Technology Commercialization

Overview

In patients with stable coronary artery disease, fatty deposits on artery walls can dislodge and cause acute coronary syndromes such as unstable angina, acute myocardial infarction, and sudden death. The disruption of these deposits generally happens suddenly and without opportunity for medical intervention.

A new blood plasma assay for patients with stable coronary artery disease can determine their risk of developing an acute coronary syndrome.

Invention

The assay detects the presence of plasma Factor Xla (FXla), a protein involved in blood coagulation, by enabling clinicians to measure the clotting time of a plasma sample treated with an FXla antibody. Prolonged clotting time indicates the presence of FXla and increased risk of developing an acute coronary syndrome, with the level of risk rising in proportion to the length of clotting time.

In initial testing, the assay detected elevated FXla in 25 out of 26 patients with known cases of acute coronary syndrome. Also, it detected no FXla activity in any of 12 healthy volunteers.

Advantages

- Enables physicians to assess risk of acute coronary syndromes
- Rapid, minimally invasive
- Can be used to monitor changes in patient status
- Cost-effective to manufacture as screening kit

Applications

- Kits marketed for screening of blood plasma samples

I.P. Status

US Patent #s 7,235,377 & 8,574,849

Learn more about Dr. Mann’s research at: http://bit.ly/18ji5m

For more information and licensing opportunities, contact us at: Ph: 802-656-8780 or email: innovate@uvm.edu

Follow us on Twitter
Connect with us on LinkedIn
www.uvm.edu/uvminnovations/