

Blood Test Assesses Heart Attack Risk

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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 XIa (FXIa), a protein involved in blood coagulation, by enabling clinicians to measure the clotting time of a plasma sample treated with an FXIa antibody. Prolonged clotting time indicates the presence of FXIa 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 FXIa in 25 out of 26 patients with known cases of acute coronary syndrome. Also, it detected no FXIa 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/18JlSm>

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