NOVEL METHOD FOR PREDICTING ABSOLUTE PERFUSION RESERVE

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Value Proposition: *First method to allow prediction of perfusion response to intervention on a coronary artery stenosis is fractional flow reserve.*

Technology Description

Researchers at Washington University in St. Louis have developed new non-invasive imaging biomarker that can be used to quantify the physiological significance of a coronary artery stenosis. The current gold standard metric for determining whether to perform intervention Minimize on a coronary artery stenosis is fractional flow reserve, an invasive measurement that is made in the cardiac catheterization lab. FFR-CT, a currently available commercial technology, allows a non-invasive means of predicting FFR based on CT imaging, however a positive test still requires confirmation in a cath lab prior to proceeding with intervention. Patients with false-positive results on FFR-CT will have undergone an unnecessary invasive procedure, whereas patients with false-negative on FFR-CT could be missing out on potentially life-saving therapy.

This invention is the first to allow prediction of perfusion response to intervention on a coronary artery stenosis which will allow for a new clinical test that is fundamentally different from currently available testing paradigms.

Stage of Research

Biomarker has been developed

Applications

Intervention for predicting perfusion in a coronary artery stenosis

Key Advantages

- Superior and more predictive test than the current gold standard
- Allows for more accurate prediction of FFR
- Enables an entirely new metric by which to grade the physiological significance of a coronary artery stenosis
- Can account for variation between patients and within different regions of myocardium in

microvascular function and directly quantify microvascular disease on a patient-specific basis

Patents
Patent application filed

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