A Clinical Method For Mapping And Quantifying Blood Stasis And Thrombus Risk In The Heart

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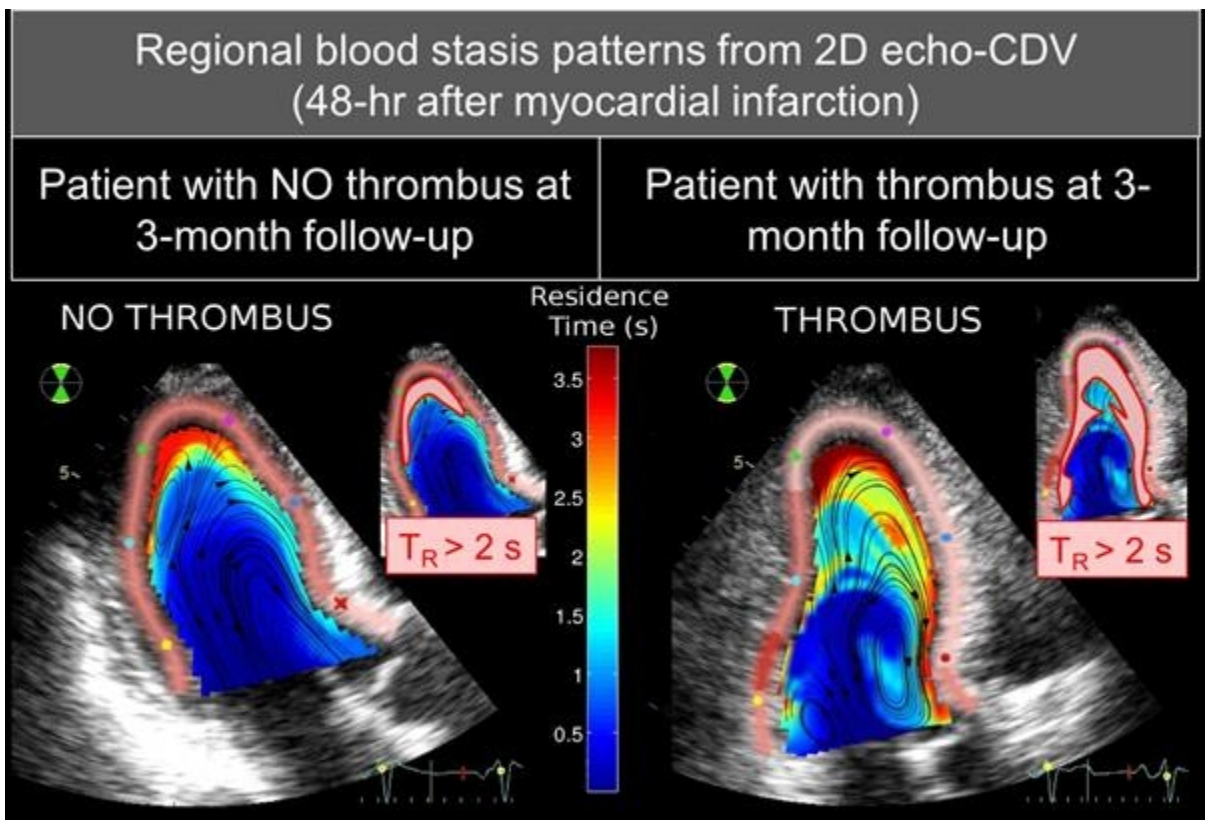
BACKGROUND

Market:

Approximately 5 million people in the US currently suffer from congestive heart failure. Of these, approximately 50% have left ventricular (LV) systolic dysfunction (weak heart muscle) and have a 5x increased risk for Stroke.

TECHNOLOGY DESCRIPTION

Given here is an enhanced imaging technique to evaluate a patient's risk for Stroke based upon quantifiable measures of blood stasis (residence time) in the Left Ventricle. The method is realized in software and leverages existing clinically abundant ultra-sound equipment to provide a clear measure of a patient's risk factors for a future Stroke based upon present measurements acquired in the clinic. Leveraging this diagnostic, more informed decisions can be made regarding the prescription of blood-thinners, potentially leading to a personalized medicine approach where a diagnostic such as this becomes a requirement before subjecting someone to a lifetime of expensive and risky anti-coagulant therapy.



APPLICATIONS

This technology is patent pending and realized in a demonstrated software package with a small set of patient data supporting efficacy. This technology could be suitable as a software services business and/or an add-on tool for an existing clinical imaging platform.

RELATED MATERIALS

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OTHER INFORMATION

KEYWORDS

heart diagnostic, thrombus, clinical method

CATEGORIZED AS

- Medical
  - Diagnostics
  - Disease: Cardiovascular and Circulatory System

RELATED CASES

2016-003-0

▶ Lorenzo Rossinia, Pablo Martinez-Legazpia, b, c, , , Vi Vuc, Leticia Fernández-Frierad, Candelas Pérez del Villarb, Sara Rodríguez-Lópeze, Yolanda Benitob, María-Guadalupe Borjaa, David Pastor-Escuredoe, Raquel Yottib, María J. Ledesma-Carbayoe, Andrew M. Kahnf, Borja Ibáñezd, Francisco Fernández-Avilésb, g, Karen May-Newmanc, Javier Bermejob, g, Juan C. del Álamoa, A clinical method for mapping and quantifying blood stasis in the left ventricle, Journal of Biomechanics. doi:10.1016/j.jbiomech.2015.11.049

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20170150928	06/01/2017	2016-003
Patent Cooperation Treaty	Published Application	WO 2019/195783	10/10/2019	2016-003
Patent Cooperation Treaty	Published Application	2017091746	06/01/2017	2016-003

Additional Patent Pending

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