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(54) Title: SPATIAL HETEROGENEITY OF REPOLARIZATION WAVEFORM AMPLITUDE TO ASSESS RISK OF SUDDEN CARDIAC DEATH

(57) Abstract: Exercise-induced T-wave alternans (TWA) in coronary artery disease patients reflects significant levels of spatial heterogeneity of repolarization, which may underlie the predictive utility of TWA in estimating risk of sudden cardiac death. A method for assessing spatial heterogeneity of repolarization of a heart of a patient includes the following steps: simultaneously sensing an ECG signal from each of a plurality of spatially separated leads attached to the patient; for a plurality of N beats in each of the ECG signals, identifying a JT interval of each beat; and for corresponding ones of the JT intervals of the ECG signals, calculating a second central moment indicative of spatial heterogeneity of repolarization.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/15511

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 5/0402
 US CL : 600/509

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 600/509, 513,516,518,519

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,473,647 B1 (BRADLEY) 29 October 2002 (29.10.2002), column 2, lines 58-64.	19 & 20
A	US 6,324,423 B1 (CALLAHAN et al) 27 November 2001 (27.11.2001), column 9, lines 40-52.	1-18

Further documents are listed in the continuation of Box C.

See patent family annex.

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