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(54) **ASSESSING INTRA-CARDIAC ACTIVATION PATTERNS AND ELECTRICAL DYSSYNCHRONY**

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(57) **ABSTRACT**

Techniques for evaluating cardiac electrical dyssynchrony are described. In some examples, an activation time is determined for each of a plurality of torso-surface potential signals. The dispersion or sequence of these activation times may be analyzed or presented to provide variety of indications of the electrical dyssynchrony of the heart of the patient. In some examples, the locations of the electrodes of the set of electrodes, and thus the locations at which the torso-surface potential signals were sensed, may be projected on the surface of a model torso that includes a model heart. The inverse problem of electrocardiography may be solved to determine electrical activation times for regions of the model heart based on the torso-surface potential signals sensed from the patient.

32 Claims, 12 Drawing Sheets

