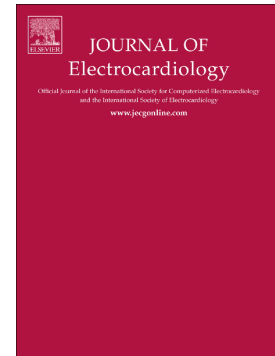


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Non-invasive electrophysiological assessment of the optimal configuration of quadripolar lead vectors on ventricular activation times

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Structured abstract

Background: Cardiac resynchronization therapy (CRT) is now generally delivered via quadripolar leads. Assessment of the effect of different vector programs from quadripolar leads on ventricular activation can be now done using non-invasive electrocardiographic mapping (ECM).

Material and methods: In nineteen patients with quadripolar LV leads, activation maps were constructed. The total ventricular activation time (TVaT) and the time for the bulk of ventricular activation (VaT₁₀₋₉₀) were calculated.

Results: CRT delivered via a quadripolar lead significantly reduced TVaT and VaT₁₀₋₉₀ by a mean of 16ms and 31ms, respectively, compared to baseline. There was a marked reduction in

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