

Biventricular pacing disappoints in BIOPACE trial

September 1 2014

Biventricular (BiV) pacing failed to significantly improve outcome compared to right ventricular (RV) pacing in patients with atrio-ventricular block (AVB) according to preliminary results presented as a Hot Line at ESC Congress 2014.

But findings of the BIOPACE (Biventricular pacing for atrio-ventricular Block to Prevent cardiac desynchronization) trial suggest a non-significant trend in favour of BiV over RV pacing – the latter being the current standard of care.

"Additional analyses will perhaps identify sub-groups for which BiV confers a clear benefit," suggested principal investigator Jean-Jacques Blanc, MD, from Brest University in Brest, France.

Patients with AVB, a common disease also known as "heart block", require permanent ventricular pacing because their heart beats too slowly.

RV pacing has been the accepted treatment for AVB, but recent evidence has suggested this approach may have deleterious long-term effects on cardiac structure and function, said Professor Blanc.

The BIOPACE trial, randomised 1810 [patients](#) with AVB (mean age 73.5 years) to either RV pacing (n=908) or BiV pacing (n=902) to determine if the latter approach could prevent some of these [deleterious effects](#).

After a mean follow-up of 5.6 years, the groups had a similar rate of the composite endpoint that included time-to-death or first hospitalisation due to [heart](#) failure, with a non-significant trend in favour of BiV (hazard ratio [HR] 0.87; $p=0.08$).

This [trend](#) persisted, still without reaching statistical significance, when patients were stratified according to their left ventricular ejection fraction (LVEF). For patients with an LVEF of 50% or less, the HR was 0.92 ($p=0.47$) and for patients with an LVEF of more than 50% it was 0.88 ($p=0.21$).

Provided by European Society of Cardiology

Citation: Biventricular pacing disappoints in BIOPACE trial (2014, September 1) retrieved 6 May 2024 from <https://medicalxpress.com/news/2014-09-biventricular-pacing-disappoints-biopace-trial.html>

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