

PACE

Pacing to Avoid Cardiac Enlargement

Background: The deleterious effects of RV apical pacing on LV function have been long known. However, it's ease of use and relative stability over time have led to its continued use.

Purpose: To determine if either biventricular pacing (BiV) or right ventricular apical RVA pacing preserves LV systolic function and prevents LV remodeling in patients with bradycardia and a normal EF.

Design: Prospective, double-blinded, multi-center RCT of pts (n = 177) with EF \geq 45%.

Primary End Points: EF & LVESV @ 12 months

Results at 1 year:

EF = RVA 54.8 \pm 9.1% vs. BiV 62.2 \pm 7.0%, P<0.001
 (absolute difference of 7.4 % points)

LVESV = RVA 35.7 \pm 16.3 ml vs BiV 27.6 \pm 10.4 ml,
 P<0.001).

(25% relative diff between groups in change from base P<0.001.

Conclusions: In patients with standard pacing indications & normal LV systolic function, RVA pacing adversely affects LV remodeling & reduces LVEF. BiV pacing prevents these.

