Abstract: **P517**

**Biatrial pacing using a canted left ventricular lead in the distal coronary sinus: one-year results from a series of six cases**

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**Topic(s):**
Antibradycardia Pacing

**Citation:**

Background: Biatrial pacing has been shown to be effective in reducing arrhythmia burden in atrial fibrillation (AF). However, insufficient lead stability has been a serious obstacle in reliably delivering permanent left atrial (LA) pacing. Recently, placement of a canted LV lead in the distal coronary sinus (CS) to pace the LA has been described in a group of patients implanted with a CRT device.

Purpose: To assess the long time feasibility of continuous biatrial pacing in patients with AF using a canted LV lead in the distal CS

Methods: 6 patients with non-permanent AF and a class I indication for pacing received a biatrial three-chamber pacemaker (RA/ LA/ RV). The device was set to deliver permanent atrial overdrive pacing. Electrical measurements were recorded every 3 months. Chest X-rays were obtained postoperatively and after 12 months.

Results: The LA lead was successfully implanted in 5 of 6 patients. In one patient, the distal CS proved too narrow to accommodate the canted lead. The anatomic LA lead position was unchanged radiographically at 12 months in 5/5 patients. Pacing thresholds, impedance values and interatrial electrical activation delay remained stable over time. Of the 5 patients successfully implanted, 4 had an AF burden between 0 and 4.9 per cent at 12 months while 1 patient was in permanent AF.

Conclusion: Placement of the canted lead in the distal CS was possible in 5 out of 6 patients, yielding reliable biatrial pacing with stable LA lead positions and electrical values throughout the 12 month follow-up. The authors believe that, given the reliable LA pacing observed in this small cohort, larger studies to systematically assess the effect of this biatrial pacing configuration on a population of AF patients would be well-merited.
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