Abstract: **P6018**

Can chronic his bundle pacing be safely started in centers with lack of experience of this technique?

Data from a multicentric registry

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**Topic(s):**
Antibradycardia Pacing

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**Introduction:** Right ventricular pacing (RVP) induces ventricular asynchrony in patients with normal QRS and increases the risk of heart failure and atrial fibrillation on long term. His bundle pacing (HBP) is a physiological alternative to RVP. Interest in HBP has been hampered in part by technical challenges and limited implantation tool set. Recent studies assessed feasibility and safety in expert centers with a vast experience of HBP. These results may not apply to less experienced centers.

**Purpose:** To evaluate feasibility and safety of permanent his bundle pacing in hospitals with limited technical training to this technique and to evaluate stability of his bundle capture thresholds at 3 months follow-up.

**Methods:** We included all patients who underwent pacemaker implantation with attempt of HBP in three hospitals between September 2017 and December 2018. All the 5 operators were novice for HBP at the beginning of the study. Selective his bundle capture (HBC) was defined as concordance of QRS and T waves complexes with the native ECG (patients with underlying bundle branch block may normalize), presence of a delay between spike and QRS complex, absence of widening of the QRS at a low pacing output, and recordable his bundle electrogram. At 3 months follow-up, his bundle capture thresholds, R-wave amplitudes and pacing impedances were recorded.

**Results:** HPB was successful in 51 of 58 patients (87.9%); selective HBC was obtained in 40 patients while nonselective HBC occurred in 11 patients. Indication for pacemaker implantation was atrioventricular conduction disease in 31 patients (53%), sinus node dysfunction in 5 patients (9%) and AV nodal ablation for non-controlled atrial arrhythmias in 22 patients (38%). AV nodal ablation was performed during the same procedure in 14 patients. The mean procedure duration was 75±8 min, and mean fluoroscopy duration was 10±2 min. The mean HBP threshold was 1.47±0.27 V and did not increase after a 3 months follow-up (1.12±0.18 V). Only 7 patients (14%) had HBP threshold >2V/0.5ms. The mean impedance was 477±37 Ω and slightly decreased at 3 months (364±24Ω). The mean R-wave amplitude was 4.1±1 mV at implantation and 3.2±0.6 mV at 3 months. Bundle branch block correction was achieved in 5 of 7 patients with underlying left bundle branch block. There was no pericardial effusion, no pneumothorax and no device infection. Ventricular lead revision was required at 3 months in one patient for sudden threshold increase, without obvious dislodgement.

**Conclusion:** His bundle pacing performed by novice operators to this technique appeared feasible and safe. The mean HBP threshold did not increase at 3 months follow-up.
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LBBB correction after HBP