Registries and observational surveys

Extended Abstract

His-bundle lead implantation program: a 2-year single-centre experience

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His bundle pacing activates the ventricles physiologically by direct stimulation of the His-Purkinje cardiac conduction system. It was first described in the 1970s, first studies were reported in the early 2000s followed by technological advances that led to its widespread uptake and growing evidence base. This retrospective study aimed to evaluate His-bundle lead implantation program in our centre. A total of 116 consecutive patients (63.8% male, 65.4 ± 13.6 years) who underwent His-bundle lead implantation in our centre from November 2018 until November 2020 were analyzed. Among these patients, over two-thirds (69.8%) had arterial hypertension, 43.1% had dyslipidemia and 29.3% had diabetes. Nearly half of patients (49.1%) had chronic heart failure, 26.7% had coronary artery disease and 8.6% had prior myocardial infarction. 40.5% of patients had atrial fibrillation. His-bundle lead implantation was achieved in 105 (90.5%) of all patients, while the rest of the procedures were aborted and ended with right ventricle lead placement. Ten (8.6%) patients had postprocedural complications, six of which were resolved without lead extraction. Only one patient had a device-associated infection. With this analysis, we showed that the results of our His-bundle lead implantation program, regarding success and complication rates, are similar to available literature data. Leading the surface of the procedure of the procedure

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- Ali N, Keene D, Arnold A, Shun-Shin M, Whinnett ZI, Afzal Sohaib SM. His Bundle Pacing: A New Frontier in the Treatment of Heart Failure. Arrhythm Electrophysiol Rev. 2018 Jun;7(2):103-110. https://doi.org/10.15420/aer.2018.6.2
- Arnold AD, Whinnett ZI, Vijayaraman P. His-Purkinje Conduction System Pacing: State of the Art in 2020. Arrhythm Electrophysiol Rev. 2020 Nov;9(3):136-145. https://doi.org/10.15420/aer.2020.14