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

KEYWORDS: His-bundle, pacing therapy, complication rates.


*ADDRESS FOR CORRESPONDENCE: Vedran Pašara, Klinički bolnički centar Zagreb, Kišpatićeva 12, HR-10000 Zagreb, Croatia. / Phone: +385-1-2367-466 / E-mail: vedran.pasara@gmail.com

ORCID: Vedran Pašara, https://orcid.org/0000-0002-6587-2315 • Ivan Prepolec, https://orcid.org/0000-0001-5870-202X • Richard Matasić, https://orcid.org/0000-0003-1289-1704 • Borka Pezo-Nikolić, https://orcid.org/0000-0002-9504-5238 • Miroslav Krpan, https://orcid.org/0000-0002-0639-953X • Mislav Puljević, https://orcid.org/0000-0003-1477-2581 • Davor Puljević, https://orcid.org/0000-0003-3603-2242 • Martina Lovrić Benčić, https://orcid.org/0000-0001-8446-6120 • Davor Miličić, https://orcid.org/0000-0001-9101-1570 • Vedran Velagić, https://orcid.org/0000-0001-5425-5840

His bundle pacing activates the ventricles physiologically by direct stimulation of the His-Purkinje cardiac conduction system.\(^1\) 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.\(^1,2\) 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.\(^1,2\)

LITERATURE
