Electrophysiological Characteristics and Radiofrequency Ablation of Right Atrial Flutter

Staff : **Yoga Yuniadi, Muhammad Munawar, Otte J Rachman, Budhi Setiant and Dede Kusmana**
Student : **-**
Sponsor : **-**
Email : **yogayun@yahoo.com**

This study aimed to elaborate the electrophysiology characteristics and radiofrequency ablation (RFA) results of atrial flutter (AFL) which has not been established in Indonesia. Three multipolar catheters were inserted percutaneously and positioned into coronary sinus (CS), His bundle area and around tricuspid annulus. Eight mm ablation catheter was used to make linear ablation at CTI of typical and reverse typical AFL. Bidirectional block was confirmed by conduction time prolongation of more than 90 msec from low lateral to CS ostium and vice versa, and/or by means of differential pacing. Thirty AFL from 27 patients comprised of 19 typical AFL, 5 reverse typical AFL and 6 atypical AFL enrolled the study. Mean tachycardia cycle length (TCL) were 261.8 ± 42.84, 226.5 ± 41.23, and 195.4 ± 9.19 msec, respectively ($p = 0.016$). CTI conduction time occupied up to 60% of TCL with mean conduction time of 153.0 ± 67.37 msec. CS activation distributed to three categories which comprised of proximal to distal, distal to proximal and fusion activation. Only nine of 27 patients had no structural heart disease. RFA of symptomatic typical and reverse typical AFL demonstrated 96% success and 4.5 % recurrence rate during 13 ± 8 months follow up. Typical AFL is the predominant type of AFL in our population. The majority of AFL cases suffered from structural heart disease. RFA was highly effective to cure typical and reverse typical AFL.

Keywords: atrial flutter, electrophysiology, ablation