THRESHOLD AND CURRENT DIFFERENCES BETWEEN LEAD PLACEMENT IN RIGHT VENTRICULAR OUTFLOW TRACT AND RIGHT VENTRICULAR APEX

Miftahurrahmah Galuh Mayang Sari
Agung Fabian Chandranegara
Chyntia Monica Gultom

Introduction: Permanent Pacemaker (PPM) has been shown to improve outcomes in patient with bradycardia. Although no substantial evidence from studies that shown an advantage in lead placement, right ventricular outflow tract (RVOT) pacing has become the preferred pacing site. This study was to analyze threshold and current from lead placement in RVOT and RVA in Pasar Rebo General Hospital.

Methods: We retrospectively reviewed patients who underwent PPM from January 2018 to July 2019. We collected gender, ages, indication, threshold (V) and current (mA), from lead placement in RVOT and RVA.

Result: We managed to collect 26 patients, 21 patients of which lead placement were at RVOT and 5 patients at right ventricular apex (RVA). From the RVOT pacing group, we collected mean age was 70.62 ± 11.76 years, male percentage was 57.1%, mean threshold was 0.56 ± 0.1 V, mean current was 1.04 ± 0.43 mA. Variety indication of RVOT pacing were sick sinus syndrome (42.9%), bradycardia symptomatic (28.6%), total AV block (23.8%), and 2nd degree AV block (4.8%). From RVA pacing group we collected mean age was 78 ± 2.3, male percentage was 40%, mean threshold was 0.64 ± 0.23 V, mean current was 1.06 ± 0.4 mA. Variety indication of RVA pacing group were, bradycardia symptomatic (80%), and total AV block (20%).

Conclusion: From the collected data the mean threshold was lower than the previous reports from other studies. There was no differences from threshold and current between lead placement in RVOT and RVA (p > 0.5). Majority indication of patient who underwent PPM were sick sinus syndrome and bradycardia symptomatic.