Epicardial Ablation of Accessory Pathways: Single Centre Experience

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Introduction: This case series addresses the feasibility, safety and complications of transvenous epicardial ablation of accessory pathways in a single centre in Malaysia.

Methods: A total of nine patients underwent epicardial ablation procedures from 2000 to 2016 in our centre. Activation mapping was performed in all cases, with standard 3 or 4-wire study. All patients had symptoms of palpitation, 3 with recurrent supraventricular tachycardia, and two with pre-excited AF. Duration of symptoms were between 2 to 5 years. Epicardial ablation modality was radiofrequency (RF) in all patients; with 5 patients (55.5%) utilizing irrigated tip ablation catheter. Transseptal puncture was performed in 4 patients (44.4%).

Result: Median age was 33 (range 18 – 52) years. 2 patients (22%) had underlying congenital heart disease. 12-lead surface electrograms (ECG) showed WPW type A in 3 patients (33.3%) and type B in 6 patients (66.7%). Radiofrequency energy were delivered inside the coronary sinus for all the cases, with 1 patient into middle cardiac vein and one in posterior vein. Overall procedural success was 67% (6 out of 9 patients) with minimal complication of 0.1% (1 in 9 patients) developing coronary sinus perforation. There was one recurrence after a successful ablation, which was managed medically.

Conclusion: Transvenous epicardial ablation of accessory pathways can be performed with acceptable success and minimal complications in a select group of patients.