

Circumferential Pulmonary Vein Isolation for Paroxysmal Atrial Fibrillation: Five Years Cure Comparable to One Year Cure

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Introduction The late atrial fibrillation (AF) recurrence rate in long term follow-up of circumferential pulmonary vein isolation (CPVI) for paroxysmal AF is not well-documented. **Methods** 100 consecutive pts (mean age 54±10y, males 79) with drug refractory PAF were analysed. Mean LA size was 4.2±0.6cm, mean LVEF was 59±5%. 26% of pts had hypertension. AF ablation strategy consisted of CPVI. Ablation endpoint was pulmonary vein isolation confirmed with lasso catheter at first and repeat procedures. Clinical, ECG and Holter follow up was performed 3 to 6 monthly and for symptoms. Recurrence of AF/AT was defined as any episode of tachycardia lasting more than 1min.

Results Isolation of all 4 veins was successful in 93% pts with 3.9±0.4 veins isolated/pt. Follow up after the last RF procedure was at a mean of 35±10 mth (range 19-60 months). Sinus rhythm (SR) was maintained at long-term f/u in 80% pts including pts on AADs. Long-term success rate without AADs was 51% (table 1). A total of 21% pts had 2 procedures and 3% pts had 3 procedures. Most (65%) AF/AT recurrences occurred <1 year after the first procedure. Mean time to recurrence was 7±11 months (Fig.1). Kaplan Meier analysis showed cure rate of 80% at 1 year and 73% at 5 years (Fig.2). There were no major complications.

Conclusion CPVI is an effective strategy for the prevention of AF in the majority of pts with PAF. Maintenance of sinus rhythm requires repeat procedure or continuation of AAD in a significant proportion of pts. After maintenance of SR 1 year post CPVI, the late recurrence rate is low.

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PROCEDURE RESULTS

PV's isolated per patient (n)	3.9 ± 0.4
RF time (mins)	45 ± 15
Fluoroscopy time (mins)	67 ± 17
Follow-up (mths)	35 ± 10
Follow-up (range) (mths)	19-60
Sinus Rhythm at 1 yr, AAD free (%)	51
Sinus Rhythm at 1 yr, including AAD (%)	80
Second CPVI (%)	21
Third CPVI (%)	3