

Prophylactic Radio-Frequency Ablation (RFA) before an Implantable Cardioverter Defibrillator (ICD): a case series

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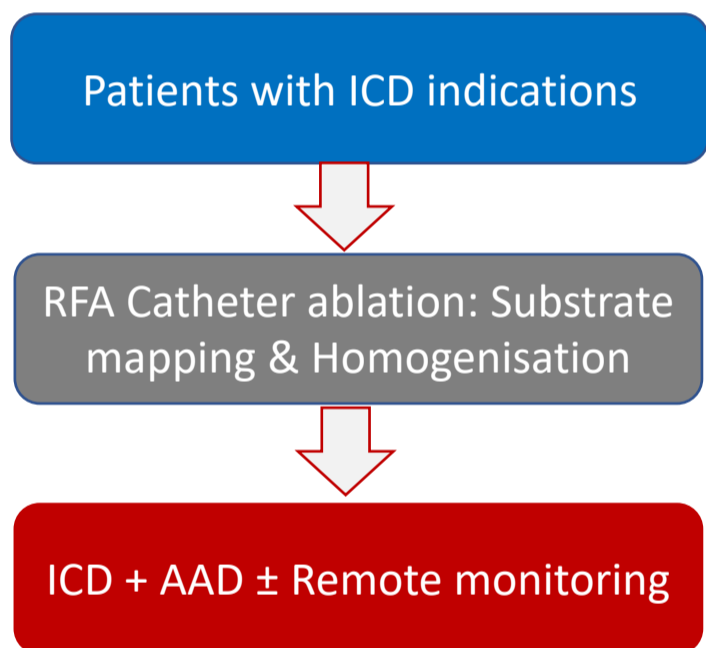
Canberra Heart Rhythm



INTRODUCTION

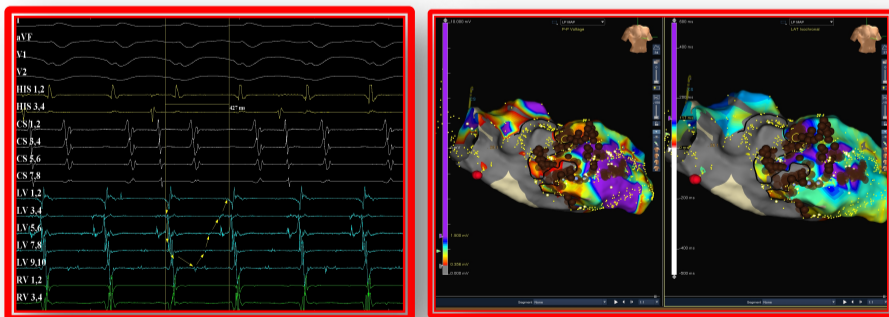
- Catheter ablation for management of VT is CLASS IIb (ACC 2017)
- Only a handful of trials studying role of 'Prophylactic RFA before ICD implant'- SMASH VT, VTACH, SMS< VISTA, HELP VT, VANISH
- None show mortality benefit; However promise towards reduction in ICD shocks

METHODOLOGY

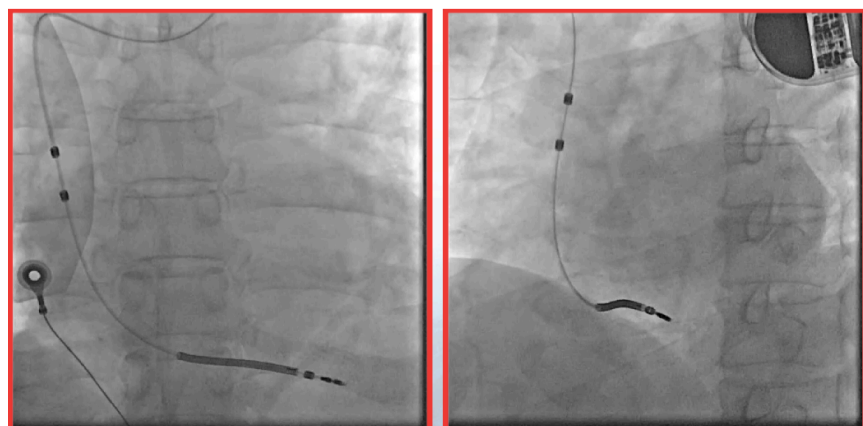


Case study: 69 Y, M, ICMP
Moderate LV dysfunction LVEF 33%;
Presents with resuscitated cardiac arrest

STEP 1: EP STUDY+ RFA



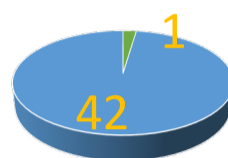
STEP 2: ICD Implant



RESULTS

GROUP A: RFA followed by ICD

GROUP B: ICD



- Primary prevention
- Secondary prevention

	GROUP A	GROUP B	P VALUE
Mean no. of Shocks	0.37±0.8	1.2±3	0.055
Mean ATP	0.7±3	2±11	0.43
Mean Therapies	1.1±3.2	2.7±13	0.42

SECONDARY PREVENTION	GROUP A (n= 42)	GROUP B (n= 27)	P VALUE
SHOCK	9 (21.4%)	11 (40.7%)	0.08
ATP	8 (19%)	9 (33%)	0.17
NO OF PATIENTS WITH EPISODE (SHOCK/ ATP)	17 (40%)	20 (74%)	0.006

Absolute risk reduction= 34% ↓ Relative risk reduction= 54% ↓ NNT=2.9

CONCLUSION

Our retrospective data, though small, reveals significantly lesser number of ICD therapies (shocks or ATPs) post-ICD implant in patients for a documented VT/VF who also received a prophylactic RFA.

CLINICAL IMPLICATIONS

- Maintenance of National ICD registry- multi-center pooling of data - May derive enough numbers to suggest benefit of RFA before ICD implant
- A National Multi-Center Randomised Control Trial: to study role of RFA before ICD Implant for secondary prevention

REFERENCES

Atti V et al. Prophylactic catheter ablation of ventricular tachycardia in ischemic cardiomyopathy: a systematic review. JICE <https://doi.org/10.1007/s10840-018-0376-5>