

Miniaturized Octopolar Catheter For Mapping In Cardiac Veins: Early Experience Guiding Ethanol Infusion In The Vein Of Marshall And LV Summit Veins

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INTRODUCTION

- ▶ Cardiac vein mapping enables characterization of ventricular arrhythmogenic substrates arising deep in the septum for left ventricular (LV) summit ventricular arrhythmias or epicardially from the vein of Marshall (VOM).
- ▶ Small vein mapping also enables verification of ablation during venous ethanol infusion.
- ▶ Previously, small multipolar catheters were not available for small vein mapping. This study tests the utility of the 2F catheter for small vein mapping in the VOM and septal veins in the LV summit.
- ▶ Coronary venous angiogram-guided mapping was performed in 12 consecutive cases using the 2F octopolar EPstar Fixed Electrophysiology Catheter (Baylis Medical).

RESULTS

- ▶ Vein of Marshall:
 - The EPstar 2F Catheter was used to assess endo-epicardial activation in mitral isthmus via VOM (n=7)
 - Successful cannulation of VOM revealed endo-epicardial dissociation with opposite propagation direction
- ▶ Septal veins:
 - The EPstar Catheter was used to successfully cannulate and map ventricular arrhythmias arising from the LV summit (n=4)
 - Mapping identified target veins for ethanol infused ablation
- ▶ Epicardial veins:
 - Mapping using the EPstar Catheter identified ventricular tachycardia substrates (n=1)
- ▶ Cannulation of small veins post-ethanol infusion allowed for confirmation of eliminated local electrograms.

CONCLUSION

- ▶ The octopolar 2F EPstar Catheter enabled successful mapping and pacing through small veins (e.g. VoM, LV summit and epicardial veins) to:
 - Detect activation patterns
 - Characterize epicardial signals
 - Verify ethanol induced ablation

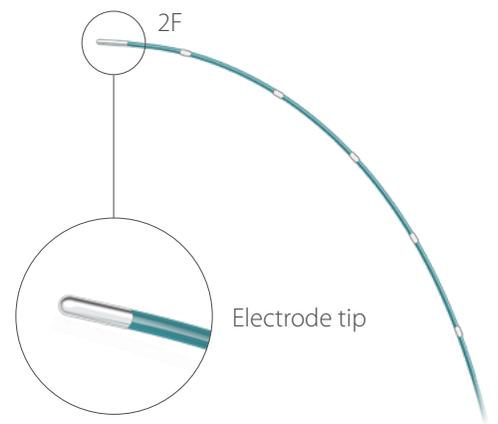


Figure 1 2F octopolar EPstar Microcatheter with flexible shaft and atraumatic electrode at the distal tip.