

Very high-power short-duration temperature-controlled ablation for pulmonary vein isolation: The Fast-and-Furious study

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Background: Catheter ablation for atrial fibrillation (AF) treatment provides effective and durable PVI associated with encouraging clinical outcome. The novel QDot ablation catheter with Qmode + ablation mode (90W/4sec, Figure 1) offers the ability to possibly improve safety and decrease ablation procedure times.

Aims: We aim to evaluate safety and efficacy of the very high-power short-duration (vHP-SD) temperature-controlled radiofrequency (RF) ablation Qmode + mode for pulmonary vein isolation (PVI) utilizing the novel QDot micro ablation catheter. The data was compared to conventional power-controlled ablation index (AI) guided PVI.

Methods: Twenty-five consecutive patients with paroxysmal or persistent AF were prospectively enrolled, underwent vHP-SD based PVI (vHP-SD group) and were compared to 25 consecutive patients treated with conventional CF-sensing catheters (control).

Results: All PVs were successfully isolated utilizing Qmode +. The total median RF ablation time was vHP-SD: 334 (282, 369) sec. vs control: 1567 (1250, 1756) sec. ($p < 0.0001$), the median procedure time was vHP-SD: 56 (48-62) vs. control: 104 (92-122) min ($p < 0.0001$). No differences in periprocedural complications were observed.

Conclusions: The novel Qmode + provides safe and effective PVI with impressive short RF time and short procedures times. Procedure time and RF time were substantial lower in the vHP-SD group.

Abstract Figure 1

