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### Presentation Abstract

Session: Atrial Fibrillation and Innovations in EP

Friday, May 15, 2009, 10:30 AM -12:00 PM

Presentation: AB25-1 - Validation of PV Isolation Using Multi-electrode Duty Cycled Radiofrequency Ablation in Patients with Paroxysmal and Persistent Atrial Fibrillation

Pres. Time: Friday, May 15, 2009, 10:30 PM -10:45 AM

Location: Room 152

Category: +22 Atrial Fibrillation & Atrial Flutter: Experimental methods

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Abstract: Introduction: A novel multi-electrode catheter (PVAC, Ablation Frontiers) combining circular mapping and duty cycled multi-electrode radiofrequency energy delivery has been developed to map and isolate the pulmonary veins. The objective of the present study was to assess the feasibility and safety of the PVAC for pulmonary vein isolation in patients with paroxysmal AF. Methods: 102 consecutive pts, age  $59.6 \pm 8.7$  years, with paroxysmal or persistent drug refractory AF were referred for ablation. All pts had documented AF episodes with an AF duration of  $9.2 \pm 7.3$  years (range 1.5-25). Results: The total procedure time was  $104 \pm 55$  min (44 to 204). In 1 pt additional ablation using conventional RF catheter ablation was necessary. The mean RF ablation time required to achieve complete PV isolation was  $31 \pm 8$  min (range 16-56). Isolation of the PVs was confirmed using a standard circular mapping catheter. In 14 pts with persistent AF additional ablations were performed to defragmentate septal and posterior part of the left atrium. At the latest follow up 79% of the pts were in sinus rhythm. Conclusions: Pulmonary vein isolation using the PVAC is feasible and safe. Larger studies are required to evaluate the whether the PVAC is associated with a different complication rate compared with standard PV isolation.

Disclosures: **A. Elvan**, None; **J. Smit**, None; **W. Beukema**, None; **P. Delnoy**, None; **A. Ramdat Misier**, None.