from 115 consecutive pts referred to elective OCV due to intolerable symptoms. I-D ACE-GP, HR rest and mean 24-hour HR (HR24) before OCV and energy of OCV were assessed in all pts. Echocardiography examination was performed before and one month after OCV. Groups were composed as follows: group A by 14 pts with TCP, and group B by 16 pts with normal LVEF during AF. Moreover, 3 groups were created based on ACE-GP: type II (8 pts), ID (14 pts) and DD (8 pts).

Results: In group A mean LVEF increased from 34.5 to 57.5% after OCV, whereas in group B it did not differ significantly (56.8% and 56.9%). Type II ACE-GP had the lowest LVEF values before OCV. In group A: HR_{rest} (116.4 vs 92.5 bpm) and HR_{24} (96.8 vs 81.7 bpm) before OCV were higher ($p < 0,03$) than in group B. Type II ACE-GP was more frequent in TCP pts (35.7% vs 18.8%), type DD – in normal LVEF pts during AF (31.3% vs. 21.4%). Higher LA diameters were observed in heterozygotic patients (ID) than in homozygotic ones (49.5 mm vs 42.8[II] and 44.0 [DD]).

ACE-GP	II	ID	DD	p
LVEF pre	38.8%	46.6%	50.1%	$p < 0.03$
LVEF post	57.8%	50.1%	52.5%	NS
HR_{rest}	116.2 bpm	99.5 bpm	107.8 bpm	
HR_{24}	113.5 bpm	85.3 bpm	87.7 bpm	
LA	46.0 mm	49.0 mm	45.5 mm	
OCV energy	30.1 J	35.4 J	38.9 J	

Conclusions: 1. Type II ACE gene polymorphism is more frequent in patients with lone atrial fibrillation who develop tachy-cardiomyopathy. 2. Higher rest values and mean 24-hour HR were observed in patients with lone atrial fibrillation and tachy-cardiomyopathy. 3. Type II ACE gene polymorphism does not affect the energy needed in sinus rhythm restoration by transoesophageal electrical cardioversion in patients with lone atrial fibrillation.

1.25 DEVELOPMENT OF A PERCUTANEOUS TRANSSEPTAL BALLOON EXPANDABLE INTRODUCER FOR MULTIPLE LEFT ATRIAL CATHETER ACCESS

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Introduction: Left atrial access is a pre-requisite for electrophysiological mapping and ablation of the left atrium, placement of atrial appendage occlusion devices and valve interventions. Further, current approaches for left atrial ablation of atrial fibrillation require double transseptal access. A novel Balloon Expandable Transseptal Introducer (BETI) capable of radially dilating the fossa ovalis and accepting multiple catheters has been developed. The purpose of this study was to evaluate the feasibility and safety of this introducer in an animal model.

Methods and Results: In a porcine study ($n = 5$), the BETI device was introduced into the right iliac vein and advanced into left atrium through the interatrial septum using a Brockenbrough needle under fluoroscopy. The BETI was radially expanded using its internal dilatation balloon (inflation pressure of 16 atmospheres for 30 seconds). Multiple mapping and ablation were advanced through the BETI into the left atrium (Fig. 1). Parameters such as guidewire tracking, septal advancement, fluoroscopic visualization, torqueability and septal perforation size and collapsibility were assessed in all animals. Two 8 French devices were accommodated with ease. The catheters and the BETI device were then removed, and the animal was euthanized. The interatrial septum from the explanted heart of each animal was examined in detail. The average septal penetration size was 6.8 mm $\pm$ 1.72 mm (Fig. 2). No evidence of significant interatrial shunt was seen by intracardiac echo post removal of sheath from the left atrium. Maneuvering of catheters within the BETI was not restricted and was ablte to provide access to allleft sides structures (atrium and ventricle).

Conclusions: The BETI provides a feasible and facile approach to access the left heart, allowing for introduction of multiple catheters through a single puncture site. This new strategy may reduce procedural time and risk of damage to cardiac structures during left atrial procedures.

1.3 CRT: ATRIAL FIBRILLATION: THERAPEUTICAL ISSUES

1.26 CARDIAC TROPONIN-T AND D-DIMER CHANGES AFTER ELECTRICAL CARDIOVERSION

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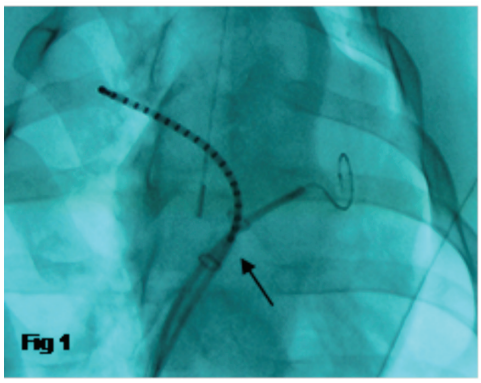
Fig 1

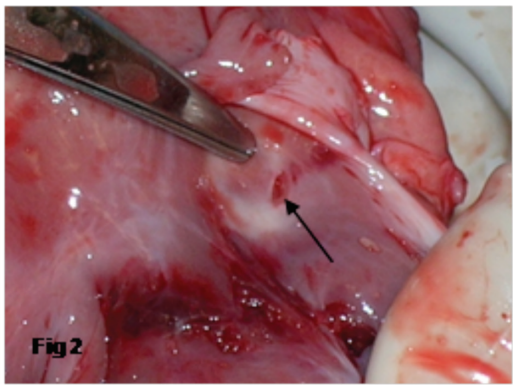
Fig 2