conventional rhythm control care: 1) minocycline or receptor antagonists, 2) statins, 3) angiotensin converting enzyme inhibitors and/or receptor blockers, and 4) cardiac revascularization including physical activity, dietary restrictions, and counselling. AF progression was defined as permanent AF at 12-month. Determinants of progression were assessed by univariable and backward multivariable Cox proportional hazards regression.

Results: Age was 65-9 years, 193 (79%) were men, total AF history was 3 (2-6) months, persistent AF history 2 (1-4) months, heart failure duration 2 (1-4) months. Hypertension was present in 144 (59%) patients, diabetes in 26 (11%) and coronary artery disease in 33 (13%). At 1-year, 49 (20%) patients had AF progression. Multivariable determinants of AF progression were total cholesterol, glucose, left ventricular ejection fraction (LVEF) <45% and upstream therapies randomized group (Table 1).

Conclusion: In patients with early persistent AF LVEF <45% and upstream therapies reduced the occurrence of AF progression. Higher glucose levels were associated with increased risk of AF progression. Total cholesterol was inversely related to AF progression.

Abstract P1175 Table. Multivariable model for AF progression

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>HR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol (per mmol/L)</td>
<td>0.73 (0.55 - 0.95)</td>
<td>0.020</td>
</tr>
<tr>
<td>Glucose (per mmol/L)</td>
<td>1.20 (1.03 - 1.40)</td>
<td>0.022</td>
</tr>
<tr>
<td>Left ventricular ejection fraction &lt;45%</td>
<td>0.35 (0.15 - 0.82)</td>
<td>0.016</td>
</tr>
<tr>
<td>Intention to treat</td>
<td>0.47 (0.26 - 0.88)</td>
<td>0.018</td>
</tr>
</tbody>
</table>

Table 1 – Multivariable factors associated with AF progression (Abbreviations: HR= hazard ratio; CI= confidence interval).

P1176

The electrocardiographic and echocardiographic factors affecting infarct volume in acute ischaemic stroke

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Introduction: Atrial fibrillation is the most-commonly encountered arrhythmia in clinical practice and is of significant importance owing to an increase in the risk of stroke in these patients. Despite this importance, the pathogenesis of atrial fibrillation is poorly understood, and the factors which influence the infarct burden in stroke is unclear. The aim of this study was to clarify the demographics of patients presenting with ischaemic stroke to a national centre of excellence, and identify electrocardiographic/echocardiographic factors influencing the infarct size in acute stroke.

Methods: Retrospective cohort analysis was conducted on patients presenting to our institution with ischaemic stroke over a six-month period (Jan-July 2016). Electronic and paper records were sourced for patient-level data. The national integrated medical imaging system (NIMIS) scans, holter monitor data and echo images were individually reviewed for quantitative data. SPSS was used to perform statistical analysis.

Results: 125 patients presented with acute ischemic stroke during the study period, with an average age of 69. 113 patients (90%) had an echo performed (72% trans-thoracic, 27% transoesophageal and 12% had both). 79% had holter monitoring performed. Those with significant carotid disease were excluded from the analysis of infarct volume.

The presence of atrial fibrillation was associated with a significantly larger left atrial diameter 4.5cm vs 3.86cm (p=0.002). Identification of AF did not influence the volume of cerebral infarct p=0.408. In cases where the LA diameter >4.5 and, when controlling for the presence of AF, there was a significant increase in the cerebral infarct volume (43.89ml vs 26.26ml, p=0.039).

Further multivariate analysis highlighted that the percentage of premature atrial complexes did not correlate with both the presence of atrial fibrillation and also with infarct size in acute stroke (Pearson R. 0.0652, p=0.589). In those undergoing TOE, atrial fibrillation was associated with lower left atrial appendage exit velocities (24cm/s vs 57cm/s, p=0.0037), but the ejection velocities alone correlated poorly with infarct size (Pearson R=0.3357, p=0.039).

Conclusion: The results of this study highlight the complex pathogenicity of atrial fibrillation, particularly in the most clinically relevant outcome i.e. acute stroke. Left atrial diameter >4.5cm was associated with larger stroke, but atrial fibrillation alone and LAA ejection velocities were not significantly associated with infarct size. This data suggests that the factors affecting the left atrium (separate from the left atrial appendage) have a role in the size of cardioembolism.

P1177

Impact of incomplete revascularization in atrial fibrillation patients undergoing percutaneous coronary intervention: the afcas registry

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University of Birmingham, Institute of Cardiovascular Sciences, Birmingham, United Kingdom; Turku University Hospital, Heart Center, Turku, Finland; Maggiore Hospital, Division of Cardiology, Bologna, Italy; Paracelsus-Harl-Clinic Bad Sooderode, Medical Faculty, Quedlinburg, Germany; Martin Luther University of Halle-Wittenberg, Medical Faculty, Halle, Germany; Satakunta Central Hospital, Heart Center, Por, Finland

On behalf of: AFCAS Study Group

Funding Acknowledgements: None related to this analysis.

Background: Patients with atrial fibrillation (AF) often have associated coronary artery disease (CAD) and undergo percutaneous coronary intervention and stent (PCI-S) procedures. When performing PCI-S in patients with CAD, use of an incomplete revascularization (IR) vs. complete revascularization (CR) strategy has been debated, but limited data on AF patients are available. We aimed to describe clinical factors associated with use of an IR strategy and the relationship to clinical outcomes in a prospective cohort of AF patients undergoing PCI-S.

Methods: Sub-group analysis from the AFCAS registry. All patients with complete data about AF revascularization strategy were considered for this analysis.

Results: From the overall AFCAS cohort of 975 patients, 950 (97.4%) were eligible for this analysis. Of these, 445 (46.8%) were managed with an IR strategy, while the remaining 505 (53.2%) were managed with a CR strategy. Patients with a IR strategy were older compared to those treated with CR (median age 75 [IQR 70-79] vs. 73 [67-77], p<0.001) and more commonly had non-paroxysmal AF (65.7% vs. 58.4%, p<0.023). IR patients had a higher thromboembolic risk profile (Median CHA2DS2-VASc score 4 [3-5] vs. 3 [2-4], p<0.001). Multivariate logistic regression analysis found that age (odds ratio [OR]: 1.03, 95% confidence interval [CI]: 1.01-1.05 per year), non-paroxysmal AF (OR: 1.53, 95% CI: 1.14-2.07), history of coronary artery disease (OR: 2.20, 95% CI: 1.63-2.88) and history of stroke/transient ischemic attack (OR: 1.57, 95% CI: 1.06-2.33) were associated with IR. At 1-year follow-up, IR patients had a higher rate of the composite outcome of acute myocardial infarction (AMI)/stent thrombosis (ST)/Revascularization, compared to patients with CR (13.9% vs. 9.4%, p<0.003). No differences were found for thromboembolic events, major bleeding and cardiovascular or all-caused death rates. Kaplan-Meier analysis shows that patients with IR (black line) approach had a higher risk for AMI/ST/Revascularization outcome (Log-rank: 4.430, p=0.035) [Figure]. A Cox regression analysis, adjusted for age, gender, creatinine clearance (as Cockroft-Gault equation), type of AF, CHA2DS2-VASc score and antithrombotic therapy, shows that only creatinine clearance (hazard ratio [HR]: 0.99, 95% CI: 0.99-1.00, p=0.031) and IR were independently associated with a higher risk of AMI/ST/Revascularization (hazard ratio: 1.66, 95% CI: 1.10-2.50, p=0.013).

Conclusions: Use of an IR approach in AF was associated with older age, non-paroxysmal AF and more clinically severe cardiovascular or cerebrovascular disease. Use of an IR approach was independently associated with a higher risk for cardiocerebral related adverse outcomes.

Abstract P1177 Figure. Kaplan-Meier Curves

P1178

Cryptogenic stroke is associated with atrial fibrosis similar to atrial fibrillation

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Background: Atrial fibrosis and amyopathic myopathy is implicated in the pathophysiology of atrial fibrillation (AF) and associated thrombo-embolic risk. Amyopathic myopathy is also suspected to lead to cryptogenic stroke, namely embolic stroke of unknown source (ESUS).

Methods: We used late-gadolinium enhancement MRI (LGE-MRI) to compare 10 patients with ESUS against 15 controls (no ESUS, no AF) and 10 patients with AF, age and sex-matched to the ESUS group. Left atrial (LA) volume index, surface area and percent atrial wall fibrosis were compared using t-tests.

Results: The mean age was 51 ± 15 years and 41% were female. ESUS patients had significantly more LA fibrosis than controls (16.8% ± 5.2 vs 10.6% ± 5.7, p=0.026), and similar to that of AF patients (16.8% ± 5.7, p=0.10). LA volume index (ESUS 38 ± 13; Control 35 ± 13; AF 63 ± 51 ml/m2) and area (ESUS 120 ± 28; Control 109 ± 30; AF 129 ± 41cm2) were not significantly different.

Conclusion: Patients with ESUS demonstrate that atrial fibrosis is significantly higher than control subjects and similar to that of AF patients. These findings support the hypothesis that atrial fibrosis is the disease process that increases patients’ risk for cardioembolic stroke. Prospective studies are needed to assess the role of
anti-coagulation in primary and secondary stroke prevention in patients with a high burden of atrial fibrillation.

P1179
Do we follow the recommendation of anticoagulation withdrawal after electrical cardioversion, in patients with atrial fibrillation?
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Background: The clinical guidelines for atrial fibrillation (AF) 2012 and 2016 recommend that patients undergoing electrical cardioversion (ECV) should be maintained on oral anticoagulation (OAC) in patients with CHA2DS2-VASc ≥ 1, one month after the electrical cardioversion (ECV), if there isn't another cause to justify it. Objective: To review the OAC therapy of patients with AF, beyond one month after the ECV.

Methods: A retrospective observational study was performed in 230 patients submitted to ECV from January 2011 to December 2016. We performed an analysis of epidemiological, echocardiographic, pre-treatment and post-ECV treatment variables. Thromboembolic Risk scores were calculated using the CHA2DS2-VASc scale. We analyzed the variables associated with maintaining OAC in patients with CHA2DS2-VASc ≥ 1, beyond one month after ECV.

Results: We studied 230 patients with a mean age of 59 ± 9 years. 75% were men, 60% had arterial hypertension and 19% were diabetics. 22% had a history of heart failure. 5% had a history of stroke and 3% had peripheral vasculopathy. 10% of patients were older than 75 years and 29% aged 65-75 years. 14% had previously been submitted to ECV. 86% of the patients reverted to sinus rhythm, and 46% persisted in sinus rhythm in a weekly control. The mean duration of atrial fibrillation prior to ECV was 5 ± 4 months. The mean ventricular ejection function was 57 ± 6% and the left atrial diameter was 43 ± 6 mm. 11.3% (26 patients) had a CHA2DS2-VASc ≥ 0 score, with a mean age of 53.4 ± 6 years. In this subgroup of patients, long-term anticoagulation was prolonged in 54.5% of cases with a mean follow-up of 29.2 ± 17 months, although in only 3 patients the CHA2DS2-VASc became 1. No variable was significantly associated with maintenance of OAC, with a tendency to withdraw OAC in patients in whom ECV is not successful (p 0.08) and patients with bigger left atrium (p 0.06).

Conclusions: It is necessary to evaluate the need for OAC after the ECV in function of the cardioembolic risk, to avoid the maintenance of a treatment not beneficial to the patients.

Abstract P1179 Table. LONG-TERM ANTICOAGULATION IN CHA2DS2-VA

<table>
<thead>
<tr>
<th>No</th>
<th>Si</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>5.98 ± 1.1</td>
<td>54.8± 6</td>
</tr>
<tr>
<td>Duration of AF prior to ECV (months)</td>
<td>7.5 ± 6</td>
<td>4.9 ± 3</td>
</tr>
<tr>
<td>Left atrium diameter (mm)</td>
<td>39.8 ± 6</td>
<td>44 ± 4</td>
</tr>
<tr>
<td>Previous ECV</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Sinus rhythm in a weekly control</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>Successful ECV</td>
<td>33.3%</td>
<td>54.2%</td>
</tr>
<tr>
<td>AF recurrence (2.2a)</td>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>

P1181
Clinical factors related to successful or unsuccessful cardioversion in the esodaxan versus warfarin in subjects undergoing cardioversion of atrial fibrillation (ENSURE-AF) randomized trial
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Funding Acknowledgements: The ENSURE-AF Study was funded by Daichi Sankyo. Background: The ENSURE-AF study (NCT 00702434) evaluated the use of non-vitamin K antagonist oral anticoagulant edoxaban versus esoxaparin-warfarin in patients with nonvalvular AF (NVAF) undergoing electrical cardioversion. Clinically relevant bleeding and thromboembolism rates were low and comparable between the treatment arms.

Purpose: To investigate clinical factors related to successful or unsuccessful cardioversion.

Methods: In this multicenter PROBE clinical trial, 2199 patients undergoing electrical cardioversion of NVAF were randomised to receive edoxaban 60 mg QD (30 mg QD if creatinine clearance 15–50 mL/min, weight ≥ 60 kg, and/or concomitant use of P-glycoprotein inhibitor), or concomitant use of esoxaparin-warfarin. Successful cardioversion was confirmed by 12-lead ECG-documented sinus rhythm. Patients who had spontaneous cardioversion or missing data were excluded from analysis.

Results: Mean age = 76 ± 10 years in the esodaxan arm (n = 1104), Cardiovension was successful in 1578 patients; 355 cardioversions were unsuccessful and/or relapse occurred. Patients with unsuccessful cardioversion were more likely to have coronary artery disease (21.4% vs 16.7%; P = 0.365), concomitant use of aspirin (15.2% vs 10.5%; P = 0.0119) or concomitant use of statins (44.2% vs 37.6%; P = 0.0220) compared with patients with successful cardioversion, respectively. International normalised ratio control was similar between patients with successful versus unsuccessful cardioversion. The primary efficacy endpoint was similar whether cardioversion was successful or not, with a nonsignificant trend for fewer events in the esodaxan arm for the esodaxan-warfarin in each of the cardioversion outcome groups. There were no significant differences in bleeding rates regardless of cardioversion outcome, and, notwithstanding the low numbers, no difference in the esodaxan arm compared to esoxaparin-warfarin [Table].

Conclusion: There were unremarkable differences in clinical comorbidities between those who had successful cardioversion vs unsuccessful. The primary efficacy and safety endpoint outcomes were similar between the successful and unsuccessful cardioversion subgroups and among the treatment arms within each subgroup.

Abstract P1181 Figure.

P1182
Acute release of natriuretic peptides in atrial fibrillation is independent of left atrial hemodynamics
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1Institute for Clinical and Experimental Medicine (IKEM), Department of Cardiology, Prague, Czech Republic; 2Institute for Clinical and Experimental Medicine (IKEM), Department of Biochemistry, Prague, Czech Republic

Funding Acknowledgements: This study was supported by the research grant of the Ministry of the Health of the Czech Republic - IKEM, IN.0002.3001

Background: Plasma concentrations of natriuretic peptides (NPs) are elevated in patients with atrial fibrillation (AF) as compared to those in sinus rhythm (SR). Mechanisms behind this phenomenon are poorly understood.

Purpose: This study investigated whether AF stimulates release of NPs independently of its effect on left atrial (LA) hemodynamics.

Methods: We examined 18 patients with non-valvular paroxysmal AF who were scheduled for catheter ablation and had documented stable SR for at least 18 hours before the procedure (61% men, age 48 ± 10 years, left atrial ejection fraction >50%). After gaining transseptal access, all patients underwent assessment of central venous pressure (CVP) and left atrial pressure (LAP) by a fluid-filled catheter. Venous blood samples were obtained to assess plasma B-type natriuretic peptide (BNP), ProA (a marker for NP degradation, NT-proBNP, Nt-proBNP), Nt-proatrial natriuretic peptide (NT-proANP, Kryptor assay, Brahms GmbH), and mid-regional pro-terminal natriuretic peptide (MR-proANP, Kryptor assay, Brahms GmbH). Subsequently, AF was induced by rapid atrial pacing, and the hemodynamic assessment and blood sampling was repeated after 20 minutes of ongoing AF.

Results: Plasma concentrations of all three NPs increased significantly during AF; however, only CVP and LAP did not change (Table 1). The elevation of NPs remained significant even after adjusting for CVP, heart rate, mean LAP, and baseline NPs concentrations.