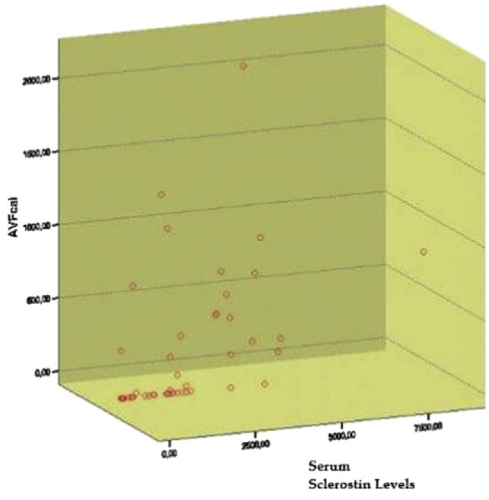

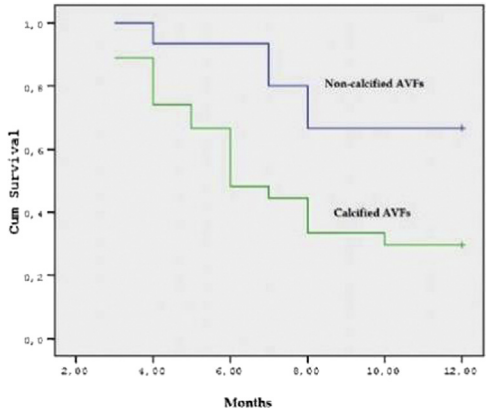

Non-invasive Arrhythmia

Monday, October 28, 2013, 15:45 PM–17:00 PM
Hall: BAKU

Abstract nos: 146-151

OP-146

Increased Levels of Oxidative Stress Indices and Lack of Antioxidant Respond Because of İschemia-Reperfusion Injury Associated with Occurrence of Atrial Fibrillation after Coronary Artery Bypass Surgery

Veysel Oktay[1], Onur Baydar[1], Ümit Yaşar Sinan[1], İsmail Polat Canbolat[1], Gürkan İmre[1], Okay Abacı[1], Cüneyt Kocaş[1], Zerrin Yiğit[1], Cenk Eray Yıldız[2], Alican Hatemi[2], Ayşem Kaya[3]

[1]Istanbul University, Institution of Cardiology Department of Cardiology, Istanbul, [2]Istanbul University, Institution of Cardiology Department of Cardiovascular Surgery, Istanbul, [3]Istanbul University, Institution of Cardiology Department of Biochemistry, Istanbul

Introduction: Postoperative atrial fibrillation (POAF) is the most common arrhythmia following coronary artery bypass surgery(CABG). Although pathogenesis of POAF is multifactorial, oxidative stress induced by ischemia-reperfusion injury is a major contributory factor. The vulnerability of myocardial tissue to the oxidative stress is also dependent on the activity of the antioxidant systems. In this trial we aimed to investigate the impact of oxidative stress and antioxidant respond caused by ischemia-reperfusion injury in the course of aortic cross clamp (ACC).
Methods: 117 patients in sinus rhythm with ischemic heart disease underwent elective coronary artery bypass surgery for myocardial revascularization were enrolled to our study. Oxidative stress indices including total oxidant status (TOS), oxidative stress index (OSI) and total antioxidant capacity (TAC) values were measured before and after removal of ACC. Postoperative atrial fibrillation was detected by analysing the rhythm records of telemetry unit during 96 hours postoperatively.In addition to oxidative stress parameters other factors associated with the development AF post-operatively were evaluated.
Results: During the postoperative follow up, atrial fibrillation was occured in 37 patients and 80 patients were maintained with sinus rhythm. In patients developed POAF, the changes of TOS, TAC and OSI values before and after ACC were significant statistically by comparison to patients maintained with sinus rhythm (Table 1). In multivariate analysis preoperative C reactive protein (CRP) levels, advanced age and left atrium enlargement were associated with postoperative atrial fibrillation.
Conclusion: The results of this study suggest that although mild oxidative stress development and antioxidant respond occurs in coronary artery bypass surgery as a reason of ischemia reperfusion injury, an exaggerated oxidative stress development not balanced with antioxidant respond can be responsible at the pathogenesis of postoperative atrial fibrillation.

Table 1

	Before Aortic Cross Clemp	After Aortic Cross Clemp	p value
	Mean±SD	Mean±SD	
TOS(μmol H2O2 Eq/)	19,69±18,92	34,37±18,99	0,002
TAC(mmol Trolox Eq/l)	2,24±0,33	2,42±0,44	0,044
OSI (AU)	8,48±7,18	13,96±6,90	0,002

Oxidative stress indices and antioxidant respond during CABG in patients developed POAF

OP-147

The Validity and Reliability of the Turkish Version of the University of Toronto Atrial Fibrillation Severity Scale

Nihan Kahya Eren[1], Selcen Yakar Tülüce[1], Barış Kılıçaslan[2], Cem Nazlı[1], Oktay Ergene[3]

[1]Izmir Katip Celebi University Ataturk Education and Research Hospital, Cardiology Department, Izmir, [2]Izmir Tepecik Education and Research Hospital, Cardiology Department, Izmir, [3]Dokuz Eylül University, Faculty of Medicine, Cardiology Department, Izmir

Introduction: Health related quality of life (QoL) is significantly impaired in patients with atrial fibrillation (AF) compared with healthy controls. There are various instruments to assess QoL in patients with AF. University of Toronto Atrial Fibrillation Severity Scale (AFSS) is a disease-specific health related QoL questionnaire designed for patients with AF. The aim of this study is to determine the reliability and validity of the Turkish version of the University of Toronto AFSS.
Materials-Methods: University of Toronto AFSS consists of 19 items combined into 3 parts to measure total AF burden, health care utilization and severity of the AF-related symptoms. AFSS and short form-36 (SF-36) were completed by 80 patients with documented AF. The Canadian Cardiovascular Society Severity in Atrial Fibrillation (SAF) scale and European Heart Association (EHRA) scale were also assessed by the treating physicians. To assess test re-test reliability AFSS were re-administered to 28 clinically stable patients at 1 month follow-up. Internal consistency reliability, test re-test reproducibility and construct validity were evaluated.
Results: Mean age of the patients was 62.7±11.4 years and 57.5% were male. Paroxysmal AF was present in 32% of patients, and 20% were on antiarrhythmic drugs to maintain sinus rhytm. All patients completed AFSS in <5 minutes. Outcome scores of the Turkish version of AFSS showed strong correlations (r>0.60) with theoretically related SF-36 domains. Additionally, AFSS outcome scores showed a linear correlation with the SAF and EHRA scores (Table 1 and 2). Total AF burden and symptom severity were strongly correlated with the patient's SAF or EHRA class (Table 1 and 2). Cronbach's alpha values for internal consistency (Table 3) were consistent and similar with the English version of the AFSS. Intraclass correlation coefficients for reproducibility exceeded 0.80 for every item.
Conclusion: Convergent-divergent and known-groups validity and reliability were established for the Turkish version of the University of Toronto AFSS.

ORALS

Table 1. AFSS outcome scores by EHRA classification and the correlation between the AFSS outcome scores and EHRA classification

	EHRA 1	EHRA 2	EHRA 3	EHRA 4	p value	Correlation coefficient (p value)
Total AF burden (range:3-30)	7.1±5.2	14.4±5.3	17.0±4.6	22.6±3.4	< 0.001	0.7 (<0.001)
Symptom severity (range 0-35)	3.6±4.7	8.8±5.8	17.7±6.6	23.8±7.4	< 0.001	0.7 (<0.001)
Health care utilization:						
Cardioversion (0-7)*	0.2±0.6	0.3±0.84	0.4±1.2	0.7±0.8	0.5	0.1 (0.09)
Emergency room visit (0-7)*	0.2±0.4	0.7±1.1	1.7±1.8	2.8±2.0	<0.001	0.4 (<0.001)
Hospitalization (0-7)*	0.2±0.4	0.6±0.8	1.0±1.1	1.8±1.6	0.001	0.4 (<0.001)
Specialist visit (0-7)*	1.5±1.5	2.5±2.3	2.5±2.0	2.8±1.8	0.2	0.2 (0.07)

Data are presented as mean±standard deviation. *The numbers indicate the range of scores. A correlation coefficient of > 0.6 indicate strong correlation. Increasing scores indicate increasing symptoms and severity. AFSS: Atrial Fibrillation Severity Scale EHRA:European Heart Rhythm Association class

Table 2. AFSS scores by SAF classification and the correlation between AFSS outcome scores and SAF classification

	SAF 0	SAF 1	SAF 2	SAF 3	SAF 4	p value	Correlation coefficient (p value)
Total AF burden (3-30)¶	5.7±5.1	9.2±5.0	15.2±4.6	17.6±3.8	21.4±4.7	< 0.001	0.75 (<0.001)
Symptom severity (0-35)¶	3.3±4.0	4.2±5.2	9.9±4.2	15.2±5.0	23.6±.6.8	<0.001	0.79 (<0.001)
Health care utilization:							
Cardioversion*	0.4±1.0	0.2±0.5	0.2±0.5	0.5±1.4	0.5±0.7	0.80	0.08 (0.40)
Emergency room visit*	0.3±0.5	0.5±1.1	0.6±1.0	1.3±1.6	2.5±1.9	<0.001	0.4 (<0.001)
Hospitalization*	0.3±0.5	0.5±0.8	0.5±0.6	0.7±1.1	1.4±1.6	0.08	0.2 (0.05)
Specialist visit*	1.7±1.5	1.8±1.8	2.8±2.6	2.2±2.1	2.7±1.7	0.47	0.18 (0.16)

Data are presented as mean±standart deviation. A correlation coeffcient of >0.6 indicates strong correlation. ¶The numbers indicate range of scores. *The score of the items in the health care utilization subscale ranges from 0-7. Increasing scores indicate increasing symptoms. AFSS: Atrial Fibrillation Severity Scale SAF: Severity in Atrial Fibrillation class

Table 3. Internal consistency of the three domains of the AFSS

	Internal consistency (Conbach α)
Total AF burden	0.85
Symptom severity	0.90
Health care utilization	0.67

AFSS: AF severity scale AF: atrial fibrillation

ORALS

OP-148

Non-Valvular Atrial Fibrillation in the Elderly; Preliminary Results from the National AFTER (Atrial Fibrillation in Turkey: Epidemiologic Registry) Study

Faruk Ertas[1], Mustafa Oylumlu[1], Mehmet Ata Akıl[1], Halit Acet[1], Mehmet Zihni Bilik[1], Tahsin Celepkolu[2], Abdulkadir Yildiz[1], Hasan Kaya[1], Sait Alan[1], Hakan Özhan[3]
[1]Dicle University Faculty of Medicine, Department of Cardiology, Diyarbakir, [2]Dicle University Faculty of Medicine, Department of Family Medicine, Diyarbakir, [3]Duzce University Faculty of Medicine, Department of Cardiology, Diyarbakir

Objective: This study aimed at the assessment of the clinical approach to AF in the older population and the consistency with the guidelines based on the records of the multicenter, prospective AFTER (Atrial Fibrillation in Turkey: Epidemiologic Registry) study.
Methods: 2242 consecutive patients admitted to the cardiology outpatient clinics of 17 different tertiary health care centers with at least one AF attack determined on electrocardiographic examination, were included in the study. Among the patients included in the study, 631 individuals aged 75 years and older were analyzed.
Results: The mean age of the patients was determined as 80.3±4.2 years. The most frequent type of AF in geriatric population was the persistent- permanent type with a percentage of 88%. 60% of the patients with AF were female. Hypertension was the most common co-morbidity in patients with AF (76%). While in 16% of patients a history of stroke, transient ischemic attack or systemic thromboembolism was present, a history of bleeding was present in 14% of the patients. 37% of the patients were on warfarin treatment and 60% of the patients were on aspirin treatment. In 38 % of the patients who were on oral anticoagulant treatment, INR level was in the effective range.
Conclusion: The rate of anticoagulant use in the elderly with AF was 37% and considering the reason of this situation was the medication not being prescribed by the physician, one should pay more attention particularly in the field of treatment.

OP-149

Can Superiority of Rhythm Control be Expected in Young Patients with Non-Valvular Atrial Fibrillation (AF)?

Amel Boudrifa, Yazid Aoudia, Nora Ali Tatar, Yacine Bouhouita, Mohand Tayeb Chentir
Department of Cardiology, University Hospital Mustapha Pacha, Algeria

Introduction: Since transition disease has become a reality with the aging of the population, non-valvular AF appears as a new challenge in the scope of cardiology.

There are two strategies in the treatment of atrial fibrillation. One of them is cardioversion and maintenance of sinus rhythm with antiarrhythmic drugs; the other one is respect of AF and treatment with rate control drugs.

The two strategies were widely compared in the Affirm Study Without superiority of any of them. However, with a focus on the population studied in Affirm, we notice that it concerned old population at high risk of Stroke.

The aim of our study is then to compare the two strategies from another angle by targeting a population of younger and more active patients with AF.
Methods: We randomly assigned, in a prospective open-label study, 266 eligible patients with non- valvular AF, average age 52,41±9,6 years, 174 men (65,4 %,sex ratio 1,89), to undergo a rhythm control (R=131 patients) or a rate Control (F=131 pts) strategy.

The average follow -up (FU) was 27,18 months with 4 patients lost of view.

15 pts (8 and 7) were concerned by cross over from one strategy to the other.
Results: 240 pts (90%) pts were symptomatic. AF was paroxystic in 97 pts (36%), persistent in 61pts (23%) and permanent in 108pts (41%). 203 pts had comorbidities particularly hypertension in 142 (53%) and diabetes in 34 (13%). Isolated AF was present in 63pts (24%).219 pts (82%) were at low thromboembolic risk with a CHADS2 score ≤1. The hemodynamic status was favorable with an average LVEF of 64%.

There were fewer events in the R arm than in the F one, appearing late during FU but the difference wasn't statistically significant. There was no significant difference in survival without heart failure or ischemic stroke, respectively 83.8% [CI: 68.5- 100] and 56.6% [36.4-88], p=0.43.
Discussion-Conclusion: These results can be explained by the young age of the population with a low risk in which the events are rare and late in a chronic disease that requires treatment and long term follow up. For more than 2 years FU, superiority of rhythm control over rate control wasn't demonstrated despite the patients' profile that seemed to be favorable. However, given the shape of the survival curves, we can anticipate a superiority of rhythm control in the long term.