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GLOBAL HEART

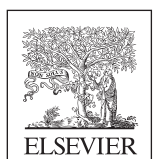


**WORLD HEART
FEDERATION®**



The Cardiac Society of
Australia and New Zealand

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SPECIAL ISSUE

WORLD CONGRESS OF CARDIOLOGY SCIENTIFIC SESSIONS 2014
INCORPORATING THE
ANNUAL SCIENTIFIC MEETING OF THE CARDIAC SOCIETY OF
AUSTRALIA AND NEW ZEALAND

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PW108

A retrospective review of the impact of concurrently implementing Pre-hospital Ambulance activation of Primary Angioplasty and opening a second coronary catheterisation laboratory on door to balloon times for ST elevation myocardial infarctions

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Introduction: Improved door to balloon times (DBT) correlate with better outcomes for patients with ST Elevation Myocardial Infarctions (STEMIs). In order to improve the DBT at St George Hospital, a tertiary referral centre providing 24-hour primary coronary angioplasty, a Pre-hospital Ambulance activation of Primary Angioplasty (PAPA) commenced in June 2011. This coincided with re-installation of the second catheter laboratory, which had been non-functional for 6 months.

Objectives: We sought to assess the impact on DBT of, firstly, the implementation of the PAPA system and secondly the availability of a second laboratory for presentations that occur 'in hours' (08:00 – 17:00).

Methods: Data is routinely collected using a standardized form and securely stored for every STEMI. Retrospective analysis was conducted for each STEMI patient who presented in the 15 months before and after PAPA implementation. 'In hours' data was reviewed for the six months pre and post the second laboratory re-installation. 'Door to balloon time' (DBT) was defined as 'time of emergency triage' to 'time of balloon inflation' for all presentations except PAPA cases where DBT was defined as the 'time of ambulance arrival' to 'time of balloon inflation'.

Results: Populations were similar with an average age pre and post PAPA of 64 years. Male patients accounted for 74% of the population pre PAPA and 78% in the post PAPA period.

There were 75 STEMIs with an average DBT of 93minutes in the 15 months prior to PAPA implementation and 96 STEMIs (68 non-PAPA and 28 PAPA cases) with an average DBT of 67 minutes (78 and 41 minutes respectively) in the 15 months post. DBT improved on average by 26 minutes (15 minutes for non PAPA cases and 52 minutes for PAPA cases). For PAPA cases DBT decreased by 56% (p<0.05).

In the 6 months prior to PAPA 14 of the 33 STEMIs occurred 'in hours' with an average DBT of 78minutes. In the 6 months post PAPA 18 of 33 STEMIs occurred 'in hours' with a DBT of 65 minutes. For in hour presentations there was an average 13 minute reduction of DBT after the re-installation of the second catheter laboratory-an improvement of 18% (p<0.05).

Conclusion: Implementation of Pre-hospital Ambulance activation of Primary Angioplasty significantly decreased door to balloon time for primary coronary angioplasty in ST Elevation Myocardial Infarctions. The availability of a second catheterization laboratory 'in hours' added to improved door to balloon times.

Disclosure of Interest: None Declared

PW109

Ratio Of Proinflammatory And Antiinflammatory Factors For Acute Coronary Heart Disease Course

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Introduction: The aim of the study was differential diagnosis of the inflammation syndrome at the patients with ACHD.

Objectives: The study included 27 patients (64,52±1,82; 9,08 years old – y.o.) with ST segment elevation acute myocardial infarction (STEMI) and 25 (64,15±1,58; 8,23 y.o.) - with unstable angina pectoris (UAP). 10 healthy subjects 22-58 y.o. consisted control group.

Methods: Research included investigation of cardiac biomarkers, interleukin-10 (IL-10), high sensitive C-reactive protein (hsCRP), auto-antibodies to chaperone 60 (anti-Hsp 60); Statistical analysis included t-Student's t test, ANOVA, tests Kruskal-Wallis (KW), Mann-Whitney (MW) (SPSS for Windows Release 13.00, SPSS Inc., 1989–2004). Calculated value of M - mean, SEM - standard error; SD-standard deviation, 95% CI-95% confidence intervals for the mean, Med - median; Q - lower and upper quartiles.

Results: Ratio on division of the level anti-Hsp 60 and hsCRP (anti-Hsp 60 / hsCRP) at patients with STEMI was significantly lower (15,91±4,43; 23,04 conventional units (c.u.); (6,80-25,03); 5,73; (2,73-21,64), P_{MW}=0,0001) than in healthy 348,02±107,55; 340,12; (104,71-591,32); 275,33; (58,34-583,00). Index ratio of hsCRP to IL-10 (hsCRP / IL-10) 1,50 ± 0,35; 1,83 c.u.; (0,78-2,22); 0,35; (0,07-2, 43) P_{MW}=0,001; index of dividing the product of anti-Hsp 60 and hsCRP on IL-10 (anti-Hsp 60 * hsCRP) / IL 10) at patients with STEMI was significantly higher 109,80 ± 31,48; 163,57 c.u.; (45,10-174,51); 32,17; (2,85-209,42), P_{MW}=0,001 compared with the control group. In patients with UAP were dominant index ratio of IL-10 to the absolute phagocyte count (IL10/ absolute phagocyte count) (M±SEM; SD; 95%CI: 2,82±0,27; 1,37; 2,26-3,39 c.u.), moderate this ratio at patients with uncomplicated STEMI (1,94±0,38; 1,08; 1,04-2,84 c.u.) and reduced - in complicated STEMI (1,59±0,26; 1,11; 1,05-2,13; P_{ANOVA} 1-2-3=0,006) (table 2). A similar trend was typical for index ratio of hsCRP to the absolute phagocyte count (hsCRP / absolute phagocyte count).

Conclusion: Severe inflammatory and anti-inflammatory activities is characteristic feature for the patients with UAP. Moderate inflammatory and autoimmune inflammatory activity with reduced anti-inflammatory potential was typical for patients with complicated AMI.

Disclosure of Interest: None Declared

PW112

Use of Intensive Lipid-lowering Therapy in Patients Hospitalized with Acute Coronary Syndrome in Dubai, United Arab Emirates

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Introduction: Early and intensive lipid-lowering therapy (LLT) in patients with acute coronary syndrome (ACS) reduces cardiovascular morbidity and mortality. Few data is available about the utilization and predictors of LLT among hospitalized ACS patients in United Arab Emirate (UAE).

Objectives: This study aimed to analyze the use of intensive LLT at discharge in patients hospitalized with ACS in a tertiary care hospital in Dubai, UAE.

Methods: The study is based on the data collected for ACS-related admissions in Dubai Hospital in UAE between 2006 and 2010. The use of intensive LLT, defined as dose of statin or combination therapy likely to produce >50% reduction in low-density lipoprotein (LDL) and less intensive LLT at discharge was assessed. We compared the baseline characteristics and temporal trends in these two groups.

Results: Out of 1,899 (95.4%) patients discharged on LLT, only 676 (35.6%) were treated with an intensive LLT regimen. Among those with LDL >130 mg/dl, only 39.4% or less received intensive LLT. We did not find statistically significant variation in intensive LLT by male (35.8%) and female (35.2%) gender, and by nationality, South Asian (35.2%), Arabs (33.0%), native Emirati (39.9%) and others (38.3%). Mean total cholesterol, LDL-cholesterol and triglycerides were significantly (p<0.05) higher in the intensive LLT group. Predictors of intensive LLT at discharge included history of hypercholesterolemia, diabetes, and use of beta-blockers prior to the admission to hospital. We noted an increase in use of intensive LLT from 25.5% in 2007 to 71.4% in 2010.

Conclusion: In our study sample of patients with ACS, a high proportion of eligible patients were not discharged on intensive LLT. The increase in use of intensive LLT over study years is encouraging.

Disclosure of Interest: None Declared

PW114

Clinical significance of carotid plaque score in the prediction of coronary artery complexity in patients with suspected angina pectoris

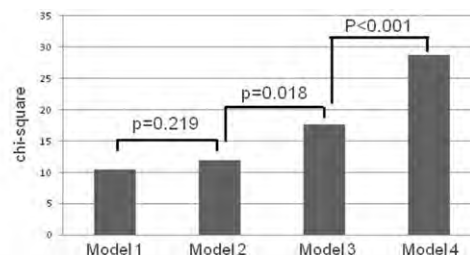
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Introduction: The SYNTAX score is strongly associated with the complexity of coronary artery disease (CAD). Recently, several non-invasive testing for the severity of atherosclerosis has been shown to predict CAD.

Objectives: We set up this study to examine which non-invasive test has the strongest relation with SYNTAX score and its incremental value over clinical parameters.

Methods: 266 consecutive patients (70±11 yrs, 64% males) with suspected angina pectoris who had coronary angiography and non-invasive tests during the index admission were studied. We measured three parameters (plaque score (PS), mean intima-media thickness (IMT), and max IMT) using carotid ultrasonography and 2 parameters (ankle-brachial index (ABI) and brachial-ankle pulse wave velocity) using plethysmography. We also calculated Framingham risk score for CAD.

Results: The prevalences of patients with low (0-22), intermediate (23-32), and high (≥ 33) Syntax score were 88.3, 6.0, and 5.7%, respectively. SYNTAX score ≥ 23 was



Variable	Univariate		Multivariate		Stepwise regression	
	OR (95% CI)	p Value	OR (95% CI)	p Value	OR (95% CI)	p Value
Plaque score	1.14 (1.05-1.24)	<0.001	1.14 (1.05-1.24)	<0.001	1.14 (1.05-1.24)	<0.001
Mean intima-media thickness (mm)	1.12 (1.02-1.23)	<0.001	1.12 (1.02-1.23)	<0.001	1.12 (1.02-1.23)	<0.001
Max intima-media thickness (mm)	1.17 (1.07-1.28)	<0.001	1.17 (1.07-1.28)	<0.001	1.17 (1.07-1.28)	<0.001
Brachial-ankle pulse wave velocity (cm/s)	1.02 (1.01-1.03)	<0.001	1.02 (1.01-1.03)	<0.001	1.02 (1.01-1.03)	<0.001
Plaque score	1.14 (1.05-1.24)	<0.001	1.14 (1.05-1.24)	<0.001	1.14 (1.05-1.24)	<0.001