Poster Presentations

P1

Changing of monocyte chemoattractant protein-1 (MCP-1) in patients with type 2 diabetes mellitus and acute coronary syndrome

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Chemokine-driven migration of inflammatory cells has been implicated in pathogenesis of atherosclerosis-associated conditions such as myocardial infarction. Recent studies have shown the important role of proinflammatory cytokines and chemokines in the pathogenesis of atherosclerosis and diabetes mellitus(DM). It is known, that increased monocyte recruitment into subendothelial space in atherosclerotic lesions is one of the hallmarks of diabetic angiopathy. **Aim.** To study changes in level of MCP-1 in patients with diabetes mellitus and myocardial infarction (MI) or acute coronary syndrome (ASC). **Material and methods.** Serum levels of monocyte chemoattractant protein-1 (MCP-1) were measured in blood samples in 53 patients with type 2 diabetes mellitus during acute coronary syndrome (MI or ASC) and in 6 month after an acute coronary syndrome regression. The patients were followed up 12 month period. The study conducted with available commercial tests ELISA by «Bender MedSystems». **Results.** The levels of MCP-1 were statistically increased 6 month after an acute coronary syndrome regression in the hole group (at baseline – 312 [207; 389] ng/mL, after 6 month – 403 [302; 522] ng/mL)($p<0{,}001$). In 36 patients (67,92%) MCP-1 levels were increased from 280,5 [172,5; 347,92] ng/mL to 431 [258,9; 609,5] ng/mL– the first group ($p<0{,}001$); in 17 patients (32,08%) MCP-1 levels were reduced from 492,8 [354; 599] ng/mL by 334 [203; 623] ng/mL – the second group ($p<0{,}001$). The baseline levels of MCP-1 in two groups were statistically different ($p<0{,}001$). There was not correlation the levels of MCP-1 with the severity of myocardial injury (MI or ASC). Statistical difference in the levels of MCP-1 were not found between two groups after 6 month ($p<0{,}001$). In 25 patients (96,1%) with lower baseline level of MCP-1, it was significantly increased after 6 month ($p<0{,}001$), and nonfatal myocardial infarction were developed in 6 patients (24%) during the first year of follow up. **Conclusion.** MCP-1 seems to play an important role in low-grade inflammation and it is associated with advers outcome of MI or ASC in patients with type 2 diabetes mellitus.

P3

THE PRESENCE OF C ALLELE FOR -765G>C COMMON VARIANT OF COX-2 GENE CONSTITUTES A PROTECTOR FACTOR AGAINST CORONARY DISEASE IN CHILEAN INDIVIDUALS

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Background: Cardiovascular diseases (CVD) are thought to be caused by matrix digestion by metalloproteinases (MMPs) leading to rupture of atherosclerotic plaques. Production of macrophage MMP-2 and MMP-9 is induced by cyclooxygenase 2 (COX-2) and prostaglandins (PGs) synthesis. PGs influence the development of atherosclerosis by modulating the inflammatory response, the expression of metalloproteinases, and the growth of cells implicated in the process, such as vascular smooth muscle cells. Although COX-2 expression may be genetically determined, the relation between COX-2 polymorphisms and the risk of CVD is unclear. In the present study we have investigated the potential impact of -765G>C polymorphism at the *COX-2* gene on susceptibility to coronary artery disease (CAD) in Chilean subjects. **Methods:** A total of 102 unrelated patients with diagnosis of CAD documented by angiography (33 – 74 years old), and 93 healthy controls (30 – 68 years old) were included in this study. The -765G>C polymorphism at the *COX-2* gene was analyzed by PCR-RFLP. **Results:** The genotype distribution for -765G>C variant of *COX-2* in CAD patients (GG: 33.3%, GC: 53.0%, CC: 13.7%) and controls (GG: 12.9%, GC: 53.8%, CC: 33.3%) was significantly different ($P<0.001$). In addition, the relative frequency of mutated C allele in CAD and controls was also different (0.402 *vs.* 0.602, $P<0.001$). The homozygous CC genotype was significantly associated with a lower risk of CAD (OR= 0.16, 95% C.I. = 0.06–0.40, $P<0.001$). Similarly, the OR related to heterozygous GC genotype was 0.38 (95% C.I. = 0.18–0.82, $P<0.05$). **Conclusion:** These findings suggest that the -765G>C polymophism of *COX-2* gene constitutes an inherited protective factor against CAD in Chilean subjects. This study provides important evidence for utilizing inflammation-related genetic polymorphisms for predicting genetic risk of CVD. Financial support: Convenio de Desempeño-I-2007 (LS), Dirección de Investigación y Desarrollo, Universidad de La Frontera, Chile.

P4

TRICUSPID INSUFFICIENCY DOES NOT INCREASE EARLY AFTER PERMANENT IMPLANTATION OF PACEMAKER LEADS

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Background: Interference between pacemaker (PM) lead and tricuspid apparatus may cause tricuspid regurgitation TR. However, data regarding TR in patients with implanted PM are controversy. Our aim is to find out the degree of TR in a group of patients before and following PM implantation in a prospective manner. **Methods:** The study group consisted of the patients referred for implantation of permanent PM or defibrillator (ICD). All patients underwent two-dimensional and Doppler echocardiographic evaluation before and after device implantation. The severity of TR was qualitatively classified into 4 groups as normal or trivial, mild, moderate, or severe. All studies were reviewed for accuracy by a second independent interpreter. **Results:** Sixty-one patients (mean age 53”b8 years, 44 male) referred for PM (n=55) or ICD (n=6) implantation consisted of the study population. Echocardiographic degree of TR was mild in 21 (70%), moderate in 7 (23%) and severe in 2 (7%) patients before PM implantation. Following device implantation, mild TR was noted in 23 (76%), moderate in 10 (33%) and severe in 2 (6%) cases. After the procedure, the TR severity was increased from normal/trivial to mild in 5 (16%) cases and from mild to moderate in 3 (10%). There was no worsening of the severity of TR in patients with moderate regurgitation following device implantation. The severity of TR did not change at a mean follow-up of 6 ± 3 months. **Conclusions:** New or worsening tricuspid regurgitation is relatively rare after pacemaker implantation. It is not associated with an acute worsening or clinical deterioration. But echocardiographic follow-up is recommended to monitor other complications in chronic phase.

P5

IS ALLEN TEST SAFE FOR RADIAL ARTERY GRAFT IN CABG SURGERY?

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Purpose: Allen test is commonly used in choosing the suitable arm for radial artery (RA) harvesting in CABG surgery. We tried to determine the safety of this test at performed patients. **Material and method:** 2812 CABG operations were performed at the cardiovascular surgery clinic during January 1998-December 2003. The usage of radial artery was planned in 198 and performed in 178 patients (6.33%). Preoperative Allen test and modified Allen test that using the pulse oxymetry in operation room before anesthesia were performed. The results were recorded on the patients' files. These patients were analyzed retrospectively without making sex or age discrimination by using the patients' files and operation notes. **Results:** The mean age of patients that used radial artery greft was 65+/-12 and men/women proportion was 68/110. The functional capacity was found (NYHA) Class II-III in 118 (66.29%) patients. Patient had history of MI was found in 62 (34.83%) patients. Ejection fraction was found <40 in 52 (%29.21) patients. The radial artery was found unable to provide hand perfusion by itself in 30 patients (15.30%) and Allen test was considered suspicious (+) preoperatively. The radial artery was found unable to provide hand perfusion and modified Allen test was considered suspicious (+) in 18 (9.18%) patients in operation room. Arterial Doppler ultrasonography was performed in radiology clinic to these 18 patients at the postoperative period in order to determine hand perfusion and collateral circulation. Ulnar artery wasn't able to provide alone the blood flow for palmar perfusion was found in 15 (83.33%) of these 18 patients. Hand ischemia was encountered in 1 (0.56%) patient and mortality was found in 4 (2.78%) patients. **Conclusion:** Modified Allen test is a safe, simple and considerably cheap method in choosing the arm for radial artery harvesting in CABG surgery according to angiography or Doppler ultrasonography.

Circulation
American Heart Association

P6

TWO FACTORS EFFECTING THE MORBIDITY AND MORTALITY IN SURGERY OF VASCULAR INJURIES DUE TO GUNSHOT: missed arterial injury, ignored vein repair

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Aim: The aim of this study is to assess the causes and the clinical outcomes of missed arterial injuries and ignored venous repair after gunshot surgery. **Methods:** This retrospective study was undertaken to analyze 275 shotgun vascular injury patients' who admitted to our clinic from January 1992 to December 2004. All patients' data were searched from their medical file and operative note. The incidence of missed arterial injuries and ignored venous repair, localization and type of vascular complications, limb loss and mortality was documented. **Results:** Seventy-five patients (27.27%) with a delayed diagnosis of an arterial injury and 91 patients (33.09%) with an ignored venous repair were treated. Complications of missed arterial injuries were false aneurysm n=43 (57.33%), arteriovenous fistula n=20 (26.66%), occlusion n=12 (16%). The most commonly missed injured artery (n=20) was superficial femoral artery. There were 167 venous injuries patients. Complications of ignored venous repair were venous edema and deep vein thrombosis. **Conclusion:** Missed arterial injuries and ignored venous repair at initial diagnoses or operations to affect the morbidity and mortality in shotgun injury patients. After hemodynamic stabilization, shotgun patients should be undergoing arteriography and venography to define the anatomic localization of vascular injuries. All vascular continuity is restored either by primary repair or by an autogenous graft. All venous injuries located in popliteal and femoral area should be repaired.

in diabetics were registered. Treatment goals were defined according to AHA/ACC guidelines for secondary prevention. We determined both the achievement of treatment targets for individual RF and the combined endpoint of all RF together. **Results:** 170 patients (16% women, age 60 ± 10yo). Achievement of goals for individual RF at baseline and 6 months are shown in the table. Only 14% of the subjects achieved the combined endpoint target for all RF. **Conclusions:** This study shows a good achievement of treatment goals of individual cardiovascular RF. However, the global achievement of the combined endpoint was extremely low. These results suggest the importance of a global management of RF.

Target	Achievement Baseline (%)	Achievement 6 months (%)	p
BP <140/90	87%	78%	< 0.0001
LDL < 100	41%	81%	< 0.0001
No Tobacco	69%	88%	< 0.0001
BMI < 25	15%	22%	< 0.0001
Exercise ≥3 times/week	10%	33%	0.022

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ANTIPHOSPHOLIPID SYNDROME AND HYPERTENSIVE DISORDERS OF PREGNANCY (preliminary results).

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Introduction: There are not available prospective studies to determine the contribution of Antiphospholipid Syndrome (APS) to the overall problem of preterm birth from hypertensive disorders of pregnancy (HDP). **Objectives:** 1- To asses the prevalence APS in HDP and its relationship with perinatal outcome. 2- To asses the perinatal outcome and hypertension recurrence in a next pregnancy (pg). **Design and setting:** Prospective observational. Public Hospital **Material and methods:** Laboratory studies: Lupus Anticoagulant (LAC) was done according to the recommendations of the International Society of Thrombosis and Haemostasis. Solid phase assays (ELISA) was used to detect anticardiolipin antibodies (aCA) and anti-β2 ƒnglycoprotein Iƒv (a-β2GPI) Patients (p): During a period of 3 years, 190p were admitted to a Thrombophilia and Reproduction Working Team; 67% (129/190p) fulfilled clinical criteria of APS and 18 % (24/129) with HDP. Eighteen patients with HDP were tested for APS and was confirmed in 33% (6/18) (Table 1). **Evolution:** A total of 9 new pregnancies of the originally group with HDP(9/18) were prospectively followed-up (total=9 p APS(-):6; APS(+):3). All patients were treated with folic acid 5 mg and low dose aspirin. The 3 patients with APS received low molecular weight heparin (LMWH) (40mg/day), they all have history of fetal death associated with HDP (Table 2). **Results:** The prevalence of APS in women with HDP was 33%. In a next pg nine patients were followed in a strict group by obstetric physician and hematologist. A 83% live birth rate was achieved. In the APS(-) group there was one abortion, no IUGR but three women have a mild recurrence of hypertension. In the group with APS there was neither abortion nor hypertension recurrence, but the perinatal outcome was worst. **Comments and conclusion:** 1- The prevalence of APS in the group of women with HDP was 33%. 2-A good live birth rate was achieved in both groups. In the group with APS, that received LMWH+ aspirin there was no recurrence of hypertension, but with worse perinatal outcome. 3- Whether the treatment with LMWH could benefit women with previous HDP needs to be confirmed in large scale prospective randomised trials.

TABLE 1 - PATIENTS WITH HYPERTENSIVE DISORDERS OF PREGNANCY WITH AND WITHOUT APS: BASAL DATA

Hypertensive disorders of pregnancy			Diagnosis of HDP		Outcome (total of pg n=25)		Complications		
APS	n=	pg	Week	Rnage	Stillbirth	Viable	IUGR	Abruptio Placentae	HELLP
(-)	12	15	30	24–38	7	8	8	1	1
(+)	6	10	30	20–36	8	2	2	1	1

TABLE 2 - OUTCOME AND PERINATAL RESULTS IN A NEXT PREGNANCY

Hypertensive disorders of pregnancy			Treatment		Outcome		Complications	
APS	n=	pg	LDA	LMWH	Weight gr (range)	gestational age	Abortion	HDP
(-)	6	6	+	-	3050 (2400–3700)	37.3 (35–39)	1	3
(+)	3	3	+	+	2553 (1960–2900)	35 (33–38)	No	No

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Elevated augmentation index but not hsCRP could be related to arterial damage in patients with rheumatoid arthritis

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Purpose: Rheumatoid arthritis (RA) is associated with premature atherosclerosis. Chronic inflammation may impair arterial function and lead to the increase of their stiffness. However, it is unknown what impairment of arterial stiffness is found in case of RA and is it influenced by high level of C reactive protein (CRP). The aim of our study was to assess whether RA and high level of C-reactive protein can influence arterial stiffness in patients with RA. **Methods:** We examined 68 consecutive RA patients (age 40.68±10.07 years) with moderate and high disease activity (DAS28 5.37±0.94) and 87 controls (age 38.10±8.69 years). The aortic augmentation index (AIx) was assessed noninvasively by applanation tonometry (Sphygmocor v.7.01, AtCor Medical). Blood chemistry was performed including high-sensitivity CRP (hsCRP). When analyzing the impact of hsCRP patients with RA were divided into two groups. The first group included patients with low inflammatory status (CRP<10 mg/L, n=24) meanwhile the second group included patients with high inflammatory status (CRP≥10 mg/L, n=44). **Results:** The comparison of means have shown that AIx (22.86±12.19 vs. 12.69±0.58, p<0.001) and hsCRP (33.84±43.8mg/l vs. 1.33±2.06mg/l, p<0.001) were significantly higher in RA patients. Multiple regression analysis has also revealed that the presence of rheumatoid arthritis is an independent predictor for AIx (R2=0.718, adjusted R2=0.707, p<0.001). Comparing AIx* values by Mann–Whitney test, there was no significant difference between low and high hsCRP inflammatory status groups (23.50 [18.00–29.00] vs. 25.50 [15.50–31.00], p = 0.672). * - median [interquartile range] is reported. **Conclusions:** RA is associated with premature increase of arterial stiffness. The presence of rheumatoid arthritis contributes to increased augmentation index values. The elevation of serum hsCRP is not related to the increase of systemic arterial stiffness in patients with RA.

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Autologous Bone-Marrow Mononuclear Cell Transplantation after Acute Myocardial Infarction:Comparison of Two Delivery Techniques

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Objectives: To investigate safety and feasibility of autologous bone-marrow mononuclear cells (BMMNC) transplantation in ST elevation myocardial infarction (STEMI), comparing anterograde intra-coronary artery (ICA) delivery with retrograde intra-coronary vein (ICV) approach. **Methods:** Open labeled, randomized controlled trial of 30 patients admitted with STEMI. Patients were enrolled if they (1) were successfully reperfused within 24 hours from symptoms onset and (2) had infarct size larger than 10% of left ventricle (LV). One hundred million BMMNC were injected in the infarct-related artery (intra-arterial group) or vein (intra-venous group) and 1% was labeled with Tc99m-hexamethylpropylenamineoxime. Cells distribution was evaluated 4 and 24 hours after injection. Baseline exams (EKG; echocardiogram; MIBI SPECT; radionuclide ventriculography and cardiac MRI) were all performed before cell transfer and after 3 and 6 months. All the treated patients repeated coronary angiography after 3 months. **Results:** Thirty patients (57±11 years, 70% males) were randomly assigned into ICA (n=14); ICV (n=10) or control (n=6) group. No serious adverse events related to the procedure were observed. Early and late retention of radiolabeled cells was higher in the ICA than in the ICV group, independently of microcirculation obstruction. There was no difference in LV ejection fraction (EF) either LV dimensions among groups. However, an increase of EF was observed in the ICA group (p=0.02). **Conclusion:** Injection procedures through anterograde and retrograde approaches seem to be feasible and safe. BMMNC retention by damaged heart tissue was apparently higher when the anterograde approach was used. Further studies are required to confirm these initial data.

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IMPLEMENTATION OF EMERGENCY-BASED THROMBOLYSIS; AN ACHIEVABLE OPTION FOR RURAL HOSPITALS IN DEVELOPING COUNTRIES.

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Background In developing countries such as Malaysia, the primary mode for revascularization is via thrombolytic therapy. This is only effective when instituted within a small time window and pre-hospital delay is a major concern. In a region where the mean house-to-door times can be as long as 8.5 hours, there is an urgent need to reduce the door-to-needle times. **Methods** Emergency-based thrombolysis was initiated at Hospital Tengku Ampuan Afzan Kuantan, a 600-bed regional hospital in Malaysia. One hundred and thirty three patients with acute ST elevation myocardial infarction patients were screened. 39 patients were recruited in the 4 months prior to the implementation date and 94 patients were recruited after. The mean house-to-door, door-to-needle times were recorded. **Results** The majority of patients were male 88.7%, with a mean age of 56.4 ± 10.3 years. The median presentation time (house-to-door) was 117.50 minutes before and 136.00 minutes after (p = 0.213, Mann-Whitney U) minutes. The median door-to-needle time was 100.00 minutes before and 50.00 minutes after (p = 0.031). The mortality rates were 12.8% before and 11.70% (p=0.87, Fisher exact test) after implementation of Emergency-based thrombolysis. **Conclusion** Implementation of Emergency-based thrombolysis has markedly improved the door-to-needle times and resulted in a trend towards reduced mortality rates in acute ST-elevation myocardial infarction.
Keywords: Pre-hospital, acute myocardial infarct, ST elevation, door-to-needle time.

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COMPLIANCE WITH THE MALAYSIAN NATIONAL CLINICAL PRACTICE GUIDELINES ON THE ADMINISTRATION OF THROMBOLYTIC AGENTS IN ACUTE ST-ELEVATION MYOCARDIAL INFARCTION

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Background In developing countries such as Malaysia, the primary mode for revascularization is via thrombolytic therapy. In 2001, the 1st Edition of the Malaysian Clinical Practice Guideline

advised the door-to-needle time of 60 minutes. This has been revised in the 2nd Edition (2007) to 30 minutes. This study aims to evaluate the mean door-to-needle times following the implementation of Emergency Department-based thrombolysis. **Methods** Accident and Emergency-based (A+E) thrombolysis was initiated at Hospital Tengku Ampuan Afzan Kuantan, Malaysia. Ninety four patients with acute ST elevation myocardial infarction patients were screened and 75 patients were recruited. The mean house-to-door, door-to-needle times were recorded. **Results** The majority of patients were male (89.3%), of Malay ethnicity (84%), presenting with anterior MI (69.3%) with a mean age of 57.0 ± 9.52 years. The mean door-to-needle time was 80.54 ± 84.8 minutes (116.46 ± 109.00 minutes before the implementation). Only 20% achieved the 30-minute door-to-needle time and only 65.3% achieved the 60 minute door-to-needle time. The reasons for late thrombolysis were quoted as late referrals from A+E (50%), hypertensive emergency (22%), resuscitation (17%) and others (11%). **Conclusion** Implementation of Emergency-based thrombolysis has improved the door-to-needle times but more staff education and training is required due to the high rate of late A+E identification and late referrals. **Keywords:** Pre-hospital, acute myocardial infarct, ST elevation, door-to-needle time.

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RISK FACTOR PROFILE OF PATIENTS PRESENTING WITH ACUTE ST-ELEVATION MYOCARDIAL INFARCTION TO A RURAL HOSPITAL IN MALAYSIA

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Background Cardiovascular disease is one of the most important causes of death in Malaysia and the rate is on the increase. The major contributor to the increasing prevalence of cardiovascular disease is the rise in the risk factor prevalence such as hypertension, diabetes mellitus and hypercholesterolaemia. These modifiable risk factors could be the key in halting this trend. **Methods** One hundred and thirty three consecutive patients presenting with acute ST elevation myocardial infarction to the coronary care unit of Hospital Tengku Ampuan Afzan, Kuantan, Malaysia were enrolled into a prospective observational study. **Results** The majority of patients were male 88.7%, presented with anterior or antero-septal myocardial infarct 66.9% with a mean age of 56.4 ± 10.3 years. 72.9% were smokers, 41.3% had hypertension, 30.8% had diabetes and 27.0% had hyperlipidaemia. The mean serum Creatinine 138.1 ± 103.7 mmol/L, fasting blood sugar 7.95 ± 3.98 mmol/L, total cholesterol 5.74 ± 1.40 mmol/L, low-density lipoprotein 3.74 ± 1.22 mmol/L and high-density lipoprotein 1.19 ± 0.63 mmol/L. **Conclusion** A significant majority of patients were male aged in the mid 50's, smokers, and presented with acute anterior or anteroseptal myocardial infarction. A significant minority had a history of hypertension, diabetes mellitus or hyperlipidaemia either alone or in combination. **Keywords:** Risk factor, acute myocardial infarct, ST elevation, epidemiology.

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SURGICAL THERAPY FOR ISCHEMIC HEART FAILURE: PREDICTORS OF MORTALITY AT LATE FOLLOW-UP

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Background. Few date exist regarding the direct relationship between QRS duration (QRSd) alone and survival. Some studies have demonstrated that only left bundle branch block was associated with worse survival, others have proposed that QRSd≥120ms is an independent predictor of increased mortality in pts with heart failure. Prognostic implications of ischemic mitral valve regurgitation (IMVR) presence and degree are poorly defined and controversial. **Objectives.** Our objectives were to report long term outcomes after surgical ventricular restoration plus CABG and to report predictors of mortality at late follow-up. **Methods.** We performed a retrospective analysis to examine association between preoperative LVEF, QRSd ≥110 ms, IMVR and survival at late follow-up period (mean 23.8±19, max 60 moths). We evaluated the resting baseline standard surface ECG in 138 consecutive pts (mean LVEF 32.8±7.2%, mean NYHA class 3.5±0.6) undergoing CABG plus LV reconstruction procedure. All of these pts underwent EchoCG and angiographic assessment of LV function and IMVR degree. For exploring the relationship between survival and some explanatory variables Cox regression was used. A value of ≤0.05 was considered significant. Statistical analysis was performed with SAS 9.1. **Results.** Thirty-day mortality was 6.4%, actuarial survival rates at 1, 2, 3, 4 and 5 years were 90.7±2.6%, 83.7±3.6%, 80.6±4.1%, 77.9±4.8% and 69.5±9.2%, respectively. Mean LVEF increased from 32.0±8.8% to 37.5±7.9% at 1 year and to 36.2±6.8% at 5 years after operation (p<0,001). NYHA class improved from 3.4±0.5 to 2.3±0.4 at 1 year and 2.2±0.4 at 5 years follow-up (p<0,01). Poor 5 years survival (36.0±2.6%) was in pts with preoperative LVEF <30% and good (89.1±4.4%) in pts with LVEF≥30% (p=0.006). Preoperative moderate IMVR was presented in 39 (28.9%) and severe in 6 (4.5%) pts. IMVR alone does not significantly increased mortality risk at late follow-up (p=0.133). Prolonged QRSd (≥120ms) significantly increased mortality: RC 1.39, risk (95% CI) 4.02 (1.41; 11.45), p=0.009. **Conclusions** Patients with ischemic cardiomyopathy with severe LV dysfunction may benefit from LV reconstruction and CABG (5 year survival 70% with improved NYHA class and LVEF). QRSd ≥120ms predicts poor outcome after CABG and LV restorative surgery in patients with ischemic LV dysfunction.

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ARTERIAL HYPERTENSION MULTICENTRIC STUDY IN TYPE 2 DIABETIC PATIENTS

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Aims: To evaluate the frequency of arterial hypertension (AH) in patients with Diabetes Mellitus type 2 (DM2) treated by specialists in Diabetes and Nutrition and its association with clinical, anthropometric, and laboratory parameters, with chronic diabetes related complications and treatment description. **Methods and Materials:** A random survey of patients suffering from DM2 was carried out in 43 Specialized Diabetes Centers in Argentina. The evaluation included anthropometric measures and laboratory together with the antihypertensive treatment the patients received. We defined high blood pressure in patients with T.S. ≥ 130 mmHg y/o T.D. ≥ 85 mmHg, administration of antihypertensive agents or any combination of these. Statistical analysis: Chi2, t de Student o Mann-Whitney, Spearman, Kaplan-Meier correlation, Multiple Logistic Regression (Software: CSS/Statistical, 1993). **Results:** 1795 patients were included (ages ranging from: 66.77±10.0), F: 48.0% M: 52.0%. The arterial hypertension frequency 84.57% (IC 95%: 82.9–86.3). The AH preceded the onset of the DM: duration of DM2: 10.8±8.6 years and of AH, 11.2 ± 8.6 years, p < 0.001. The BMI of the AH group was 31.3 ±5.82 kg/m2, while the normotensive group showed a BMI of 28.55 ± 4.93 kg/m2 (p < 0.001). The waist circumference of the AH group was 103.7 ± 13.3 cm, whereas the one that belonged to the normotensive group was 96.2 ± 12.9 cm (p < 0.001). The triglyceride value of the AH group was higher than that of the normotensive group (159.9 ± 95.3 mg/dL vs 140.5 ± 79.1 mg/dL (p<0.01)) and the HDLc values of the AH group were 47.2 ± 12.2 mg/dL while those of the normotensive group were 49.49 ± 13.7 mg/dL (p<0.01). There was not a significant difference as regards the HbA1c level. Hypertension treatment: diuretics 30%, IECA: 70.5%, ARA II: 21.5%. Drug Combination: 1 Drug: 42.3%, 2 drug: 32.5%, 3 or more drugs 25.2%. DM Treatment: insulin was part of the treatment in 33.1% of the cases. The average HbA1c of the sample was 7.27%. 72.8% underwent treatment with AAS. By using Multiple Logistic Regression as a discriminant function the existence of AH was associated with age, coronary disease and nephropathy p<0.001. **Conclusions:** The frequency of the AH was 84.5%. The existence of AH correlated the waist circumference p<0.001, with BMI p<0.001, with higher triglycerides p<0.01 and lower HDLc p<0.01. 42.3% was being treated with just one antihypertensive drug. 27.2% was not under treatment with AAS, in spite of being a high risk population. In the multiple regression analysis, the AH was associated with age, coronary disease and nephropathy p<0.001.

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MYOCARDIAL PERFUSION SPECT WITH DOUBLE DRUG NEED.

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Objective: Assess the pharmacological effect of Dipiridamol (DIP), and Adenosine (ADE), as a pharmacological stress, in myocardial perfusion studies (SPECT) in a selected sample of patients (Pts). **Material:** 64 patients were studied, 40 men and 24 women, with a mean age of 66±12 years, in 40/64 patients as a diagnosis test, in 18/64 as a risk stratification and 6/64 patients for a pre-surgical non-cardiac vascular surgery. **Method:** Protocol: firstly a manual DIP IV injection in dosis of 6 mg/m2 of body surface area for an administration time of 90–120 seconds. Then an ADE IV manual injection in dosis of 3 mgs/m2 of body surface area. Two minutes after the latter: administration of the radio active drug. Haemodynamic parameters and ECG St-t were controlled during the intervals. Images were taken and processed in a rotating gamma camera, data was calculated and quantified with the Graph Pad Prism program. All patients had a cinecoronariography diagnosis. **Results:** 44/64 pts had new (reversible) perfusion defects. 20/64 pts did not have new defects (normal or necrotic). Sensitivity (S) and specificity (E) was of 88% and 88 % respectively for injuries angiographically larger than 70 %. and 79% and 87% respectively for injuries angiographically moderate (between 50 and 70%). There were no significant haemodynamic changes in any patient and headache was the most frequent adverse event (56 %). **Conclusion:** In this initial sample of patients Dipiridamol and Adenosine combination as a model of synergism of pharmacological potentialisation showed an excellent S and E in severe as well as in moderate injuries. Moreover, the use of an electronic or mechanical system for its administration is avoided, thus reducing costs.

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SPECT USEFULNESS IN PATIENTS WITH DOUBTFUL ERGOMETRY DUE TO ST-T DEPRESSION

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Objective: assess the usefulness of SPECT myocardial perfusion studies in patients derived as they present an ergometric test of 12 doubtful derivations due to St-t segment depression without angina. **Material:** From November 2001 until December 2006, 417 patients (pts) were studied consecutively, 220 men, 197 women, with a mean age of 61±10 years, derived to the nuclear medicine service as they showed in the graduated ergometric test, an st t segment depression between 1–3 mm, for diagnosis or risk stratification in myocardial coronary disease. 86 pts had a registered previous myocardial infarction, 89 pts: 1 coroanry risk factor (CRF), 195 pts: 2 CRF, 55 pts more than 2 CRF, 78 pts with no CRF awareness. **Method:** All patients underwent a functional study with a 2-separated-day protocol with sestamibi Tc99 at rest and during exercise, according to conventional protocols. **Results:**Of the 417 patients studied, 117