

0.88-1.92) but not in men. The noise exposure level at work was associated with increased risk of MI in men (OR crude 1.36; 1.03-1.81, OR adjusted 1.43; 1.05-1.96).

Conclusion: Annoyance by environmental noise and the noise exposure level at work is associated with a moderately increased risk of MI in women and in men, respectively. Further investigation of the gender related cardiovascular risk of noise burden may elucidate the responsible mechanisms and eventually aid in improving preventive strategies of MI.

1096-73 Internist Use of a Hand Carried Ultrasound Device for the Screening of Cardiovascular Disease in the Medically Underserved

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Background. Underserved minority populations have high prevalence of cardiovascular disease (CVD). Screening for CVD by physical examination is limited by poor sensitivity and specificity. Reduced access to technology may play a role in delayed detection of CVD and disparities in cardiac outcomes. Although echocardiography is highly accurate in detecting CVD, problems of portability and cost of full-featured echo platforms preclude its use in underserved areas. Hand carried ultrasound (HCU) devices have the potential to overcome these difficulties. **Methods.** 153 subjects (mean age 45, range 21-85 years, 54% female, 40% African American, 58% Hispanic) were recruited from a primary care health clinic in an underserved area to undergo a brief echo examination using an HCU device (Optigo, Agilent Technologies). Imaging was performed by a general internist with 30 hours of instruction and experience performing 30 exams with the HCU device. **Results.** There were 27 clinically significant findings in 19 subjects (12.4%). These findings included significant valvular dysfunction (n=9), regional wall motion abnormalities (n=7), and ventricular dysfunction (n=8). Abnormal findings were not predicted by patient age or cardiac risk factors. Patients who presented for a new/acute visit were more likely to have an abnormality than those who were at the clinic for a return appointment. **Conclusion.** Screening echocardiography performed by an internist with an HCU device detected clinically significant findings in a clinic that cares for the underserved. Since the natural history of many cardiac disorders can be modified through treatment, the early detection of these diseases in underserved populations may improve patient outcomes.

1096-74 Cardiovascular Risk Factors as Correlates of Erectile Dysfunction: Results of a Survey in 71,503 Men in Brazil

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Background: erectile dysfunction (ED) is now believed to be a vascular problem in its origin. Several studies have demonstrated an association between coronary artery disease (CAD) and ED, however the relationship between hypertension, sedentary lifestyle, smoking and other cardiovascular risk factors with ED remains unclear. Most previous surveys were small and lacked statistical power to investigate these issues. This analysis was conducted to assess these potential associations in a large sample of men in Brazil. **Methods:** a questionnaire was developed and administered in-person by physicians to a sample of consecutive male patients attending a routine office consultation. The survey included 71,503 men aged 18 years or more from 24 states, representing all regions in Brazil. We queried respondents about the presence of erection difficulties, sedentary lifestyle, tobacco use, hypertension, CAD, diabetes, and other medical conditions. The data have been adjusted for age, and known risk factors for ED by logistic regression. **Results:** Overall 31.1% of the men surveyed presented hypertension, 14.1% diabetes, and 7.0% CAD. Smoking was reported by 44% of the subjects and sedentary lifestyle by 34%. Some degree of ED was found in 53.5% of the men (20.8% mild, 26.3% moderate and 6.4% complete). In the multivariate analysis, the odds of ED were significantly increased in men with diabetes (OR=2.4; 95%CI 2.2-2.5), sedentary lifestyle (OR=2.3; 95%CI 2.2-2.4), CAD (OR=1.5; 95%CI 1.3-1.6), hypertension (OR=1.4; 95%CI 1.3-1.5), and smoking (OR=1.1; 95%CI 1.0-1.2). **Conclusions:** our data showed that ED is significantly associated with the presence of several cardiovascular risk factors. These associations remained true even after controlling for potential confounding by multivariate analysis. However, we cannot discern the causal direction of these relationships from cross-sectional data. Indeed, they may simply reflect a common vascular etiology for these conditions. Thus, the presence of cardiovascular risk factors should alert physicians to patients who are at higher risk for ED, and conversely, erectile difficulties should elicit further investigation for hidden cardiovascular diseases.

1096-75 Bariatric Surgery Is Effective in Controlling Major Risk Factors for Atherosclerosis in Obese Patients With Coronary Artery Disease

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Background: The cornerstone of secondary prevention of coronary artery disease (CAD) is adequate control of weight, serum glucose, blood pressure and serum lipids. The efficacy of bariatric surgery on these measures in obese patients with evidence of CAD is unclear and is the focus of this study.

Methods: Of the 567 consecutive patients who underwent bariatric surgery, 52 (9%) had CAD based on one or more of the following: history of coronary revascularization (33%, n=17), significant coronary stenosis by angiogram (48%, n=25), inducible ischemia or fixed defects on stress imaging (69%, n=36), and/or history of myocardial infarction (15%, n=8). The efficacy of bariatric surgery was measured by changes in weight and known cardiovascular risk factors. Goals were defined as a loss of >50% of excess weight, fasting glucose <100 mg/dL, glycosylated hemoglobin <7% in patients with diabetes mellitus, systolic blood pressure (SBP) <130 mmHg, diastolic blood pressure

(DBP) <85 mmHg, and LDL cholesterol <100 mg/dL.

Results: Patients were 51 ± 9 years old and 58% were men. Sixty-four percent had diabetes mellitus, 89% had hypertension, and 69% had hyperlipidemia. Improvements in cardiovascular risk measurements at follow-up (mean 695 days, range 391-896) are shown below.

Conclusion: Bariatric surgery considerably improves the cardiovascular risk profile in obese patients with clinical evidence of CAD and should be considered as a therapeutic option not only for weight loss, but also for risk factor modification.

The effect of bariatric surgery on modifiable cardiovascular risk factors, *p<0.01, ** p<0.05

	Pre-Op	Post-Op	%Goal Pre-op	%Goal Post-op
Weight (kg), n=48	147 ± 36	103 ± 22*	--	63
Body Mass Index (kg/m ²), n=48	50 ± 11	36 ± 9*	--	--
Fasting Glucose (mg/dL), n=45	149 ± 52	113 ± 31*	16	38**
Glycosylated Hemoglobin (%), n=30	9 ± 3	6 ± 2*	30	70*
SBP (mm Hg), n=43	142 ± 20	133 ± 17*	28	35
DBP (mm Hg), n=43	82 ± 12	73 ± 11*	67	91**
Total Cholesterol (mg/dL), n=36	198 ± 40	142 ± 37*	--	--
LDL Cholesterol (mg/dL), n=36	116 ± 31	75 ± 26*	33	89*
Triglycerides (mg/dL), n=36	198 ± 85	119 ± 52*	--	--
HDL Cholesterol (mg/dL), n=36	43 ± 10	44 ± 11	--	--

1096-76 Influence of Serotonin Transporter Gene Polymorphism on Depressive Symptoms and Long-Term Outcome After Acute Myocardial Infarction

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Background: Depression after acute myocardial infarction (AMI) is associated with poor long-term outcome. How the serotonin transporter gene-linked polymorphic region (5-HTTLPR) influences either cardiac event or associated with depressive symptoms is unclear. In the 5-HTTLPR polymorphism, the S allele reduces transcription and therefore serotonin reuptake, and is linked with psychiatric disease. **Methods and Results:** To determine whether the S allele is associated with depressive symptoms and poor outcome after AMI, we prospectively examined depressive symptoms and long-term cardiac outcome in 1501 genotyped patients. Depressive symptoms within 3 months after onset of AMI as assessed by the Self-rating Depression Scale were more frequent in patients with than without the S allele (48.6% vs. 30.0%, P=0.01). Cardiac events (cardiac death, need for revascularization, heart failure, reinfarction, arrhythmia, or unstable angina) were more frequent with than without the S allele (24.3% vs. 12.7%, P=0.02). After adjustment for other variables, the S allele was independently associated with depressive symptoms (odds ratio, 2.37; 95% CI, 1.18 to 4.77, P=0.02), but not with increased risk of poor long-term outcome (hazard ratio, 1.62; 95% CI, 0.80 to 3.26; P=0.18). **Conclusions:** The S allele of the 5-HTTLPR predicts depressive symptoms and a worse cardiac outcome. Assessment of 5-HTTLPR genetic variants may be a way to predict risk and outcome in AMI.

POSTER SESSION

1115 Outcomes of Cardiovascular Care

Monday, March 08, 2004, 3:00 p.m.-5:00 p.m.
Morial Convention Center, Hall G
Presentation Hour: 4:00 p.m.-5:00 p.m.

1115-67 The Medicine, Angioplasty, or Surgery Study (MASS II): Quality of Life of Patients With Symptomatic Multivessel Coronary Disease-24 Months of Follow-Up

Myrthes Emy Takiuti, Dirceu Carrara, Shirley AB Hiscock, Desiderio Favarato, Neusa H. Lopes, Whady A. Hueb, Sergio A. Oliveira, Jose AF Ramires, Heart Institute University of Sao Paulo, Sao Paulo-SP, Brazil

Background: although coronary angioplasty (PTCA) and coronary bypass surgery (CABG) are routinely used, there is no conclusive evidence that these interventional methods offer greater benefit than medical therapy (MT) alone as far as quality of life (QOL).

Objective: This study sought to evaluate the QOL of three possible therapeutic strategies for patients with symptomatic multivessel coronary disease and preserved ventricular function.

Methods: a total of 7783 eligible patients with multivessel disease were screened in a single institution and 611 7.8% patients were randomly assigned to undergo CABG, 203 to PTCA 205 and 203 to MT. QOL was evaluated by SF-36 questionnaire by interviews, in the pre treatment phase at 12 and 24 months of follow up.

Results: although all treatments offered improvement in QOL, such amelioration was greater in surgical group (table). *p<.0001

Conclusion: In conclusion surgical treatment offers better QOL among patients with extensive CAD than PCTA or MT.

Treatment	Angioplasty			Clinical			Surgery			p
	pre	12m	24m	pre	12m	24m	pre	12m	24m	
Physical Functioning	59	72.8	72.44	50	66.2	62.50	47	73.5	73.69	0,002
Role Physical	34	52.6	51.13	23	39.8	38.49	21	48.2	50.19	0,018
General Health	65	63.8	66.09	63	60.8	62.40	63	64.4	68.19	0,018
Mental Health	66	74.6	42.59	63	70.4	42.47	64	74	41.14	NS
Vitality	64	72.2	46.13	56	61.6	41.94	56	73.8	45.27	0,02
Role Emotional	52	67.1	69.92	50	64.9	64.91	46	68.9	68.72	NS
Social Functioning	58	70	86.28	57	62.7	80.35	53	66.9	87.60	0,02
Body Pain	63	75.4	70.50	62	70.1	67.30	57	76.8	73.55	NS

1115-68 Predictors of Vascular Complications in Patients Undergoing Percutaneous Coronary Intervention and Treated With Vascular Closure Devices

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Objective. The objective of our study was to identify clinical predictors of vascular complications in patients undergoing contemporary percutaneous coronary interventions and treated with vascular closure devices, VCDs (Vasoseal, Angioseal, Perclose, or others).

Methods. Clinical, procedural and outcome data on 27,202 consecutive PCIs were prospectively collected between April 2001 and May 2003 in a consortium of 16 hospitals in Michigan. Independent predictors of vascular complications (VC) were identified using multivariate logistic regression analysis.

Results. 6270 patients received a vascular closure device. Vasoseal was used in 2.7%, Angioseal in 41.9%, Perclose in 54.7% and other devices in 0.7%. The overall vascular complication rate in this group was 3.3%. There was a non-significant trend toward an increased incidence of VC in patients treated with Vasoseal (4.38%) when compared with patients treated with Angioseal (2.98%) or Perclose (3.46%). Of 28 clinical and treatment variables including type of vascular closure device, multivariate analysis identified advanced age, female sex, acute myocardial infarction, cardiac arrest, cardiogenic shock and glycoprotein IIb/IIIa receptor blocker use as independent predictors of VC (all p<0.05).

Conclusions. Baseline clinical characteristics identify patients at increased risk of vascular complications following use of VCD. The occurrence of vascular complications in these patients appears to be independent of the type of VCD.

1115-69 Lower Hematocrit Is Associated With Worse Health Status in Patients With Heart Failure

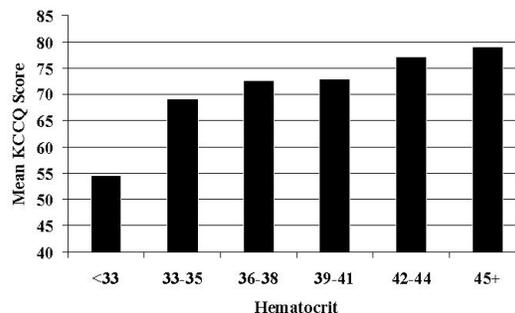
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Background: Anemia is a potentially modifiable comorbid condition in patients with heart failure (HF). Its effect on health status has not been well defined. We tested the hypothesis that lower hematocrit levels in patients with post-Myocardial Infarction (MI) HF are associated with worse quality of life as measured by the Kansas City Cardiomyopathy Questionnaire (KCCQ).

Methods: The EPHEBUS trial enrolled 6632 patients with post-MI HF, of which 1578 participated in the quality of life substudy. 3-month KCCQ scores were compared across the following ranges of hematocrit: <0.33, 0.33-0.35, 0.36-0.38, 0.39-0.41, 0.42-0.44 and ≥0.45. This time was selected to reflect a chronic HF state following patients' MI.

Results: Compared with non-anemic patients, anemic patients (hematocrit <0.39) were more likely to be female (46% vs 20%, p<0.001), older (68±24 vs 62±23, p<0.0001), diabetic (34% vs 23%, p<0.0001) and to have a higher serum creatinine (1.3 ± 1.0 vs 1.1 ± 0.6, p<0.001). Lower hematocrits were associated with worse (lower) KCCQ scores. After adjusting for baseline demographic and clinical differences, a highly significant relationship between hematocrit and KCCQ summary scores was observed (Adjusted Means shown in Figure, p<0.0001).

Conclusions: Lower hematocrits are associated with worse quality of life in HF patients, even after controlling for a range of potentially confounding factors. Further investigation of the health status benefits from correcting anemia in HF patients appears warranted.



1115-70 Effect of Obesity on Long-Term Survival Following Percutaneous Coronary Intervention

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Background: Obesity is a powerful risk factor for the development of coronary artery disease. Paradoxically, recent studies have suggested that obesity actually protects against mortality following percutaneous coronary intervention (PCI). We sought to determine the impact of obesity on long-term survival following PCI using a contemporary database. **Methods:** The study population consisted of 4284 consecutive patients undergoing PCI from January 1, 1998 to October 1, 1999 at 3 hospitals in New York City. Patients were then divided into two groups, obese patients with body mass index (BMI) ≥ 30 (n=1,410) and non-obese patients with BMI < 30 (n=2,874). Primary endpoint was all-cause mortality following the index PCI. Mean follow-up was 3 years. **Results:** Obese patients were younger (60 vs. 65 years, P<0.001) and more frequently female (36% vs. 29%, P<0.001). Mean BMI was 34.7 in the obese patients and 25.6 in the non-obese patients (P<0.001). Hypertension (74% vs. 68%, P<0.001) and diabetes (33% vs. 24%, P<0.001) were more common in obese patients while peripheral vascular disease (6.1% vs. 8.7%, P<0.001) and prior bypass surgery (14% vs. 19%, P<0.001) were less common. Presentation with myocardial infarction (9.4% vs. 11%, P=NS) and unstable angina (41% vs. 43%, P=NS) did not differ between obese and non-obese patients. Single-vessel coronary disease was more common in obese patients (53% vs. 46%, P<0.001) and mean ejection fractions were slightly greater (51% vs. 50%, P=0.04). Stent use did not differ between groups. Angiographic success was slightly reduced in obese patients (96% vs. 97%, P=0.06). In-hospital major adverse cardiac events did not differ between obese and non-obese patients. Out-of-hospital death was 7.2% for obese patients and 10.3% in the non-obese (P=0.001). After adjustment for differences in baseline characteristics, obesity was found not to be associated with an increased hazard of long-term mortality (Hazard Ratio, 0.992, 95% Confidence Interval, 0.784 – 1.254, P=0.945). **Conclusion:** Obesity does not appear to protect patients from long-term mortality following PCI. However, neither does it increase the hazard of 3-year mortality after adjustment for other co-morbidities.

1115-71 Depression Is Strongly Associated With Worse Health Status in Patients With Myocardial Infarction Complicated by Heart Failure: Data From the EPHEBUS Trial

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Background: We evaluated the relationship between depression and health status in patients with acute MI complicated by heart failure.

Methods: Patients in the EPHEBUS trial (NEJM, 2003) completed a Medical Outcomes Study-Depression (MOS-D) questionnaire at baseline and Kansas City Cardiomyopathy Questionnaire (KCCQ) at baseline, 1, 3, 6, and 12 months. The KCCQ measures heart-failure health status including symptoms, physical function, and quality of life. The KCCQ summary score has range 0-100; higher scores = better health status; 5 points = clinically important score difference. We used repeated measures and multivariable regression to evaluate the association between depressive symptoms (MOS-D score ≥ 0.06) and KCCQ summary scores.

Results: 93/423 patients (22%) had significant depressive symptoms. Depressed patients had markedly lower KCCQ scores during follow-up (Figure). After risk adjustment, depression remained significantly associated with worse baseline (p<0.001) and 12-month (p<0.001) KCCQ scores - on average, depressed patients had 8.8 point lower KCCQ scores at baseline and 13.4 point lower KCCQ scores at 12-months. Depressive symptoms were the strongest predictor of health status in the multivariable models.

Conclusion: In patients with AMI complicated by heart failure, depressive symptoms are