1191-165

Gender Differences in Cardiac Failure Outcomes

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BACKGROUND: The prognosis of coronary artery disease is strongly influenced by access to diagnostic procedures and subsequent treatment. There is uncertainty regarding gender variations in diagnostic and therapeutic course following acute myocardial infarction (AMI). American studies have documented gender differences; recent European data refute these findings. Gender based trends were examined in population-based data from a large province in Canada. METHODS: All patients (≥20 years) discharged from any British Columbia (BC) hospital between June 1 and November 30, 1999 with a primary diagnosis of AMI (ICD-9, code 410) formed the study population. Cardiac procedures, over a 6-month period, were examined from linkage with the BC Care Link, a physician billing database. RESULTS: 2837 subjects were identified. Women were older compared to men (mean 73±12 years vs. 67±13 years; p<0.001). Women were less likely to undergo an exercise treadmill test (10.8% vs. 17.0%; P<0.001), but equally likely to undergo a nuclear scan, (15.6% vs. 16.7%; P=0.50). Rates of angiography differed significantly (37.6% (F), 50.5% (M); p<0.001). Adjustment for age and comorbidities did not alter this finding: men were more likely to undergo angiography (OR 1.28, 95%CI 1.06-1.54), within 6 months post MI. Following angiography, the rate of percutaneous revascularization did not differ significantly, (51.5% (F), 55.8% (M); P<0.01). The rate of coronary artery bypass graft (CABG) varied by gender, 12.6% (F), 20.5% (M); p=0.002. Following adjustment for age and comorbidities, men were almost twice as likely to undergo CABG compared to women (OR 1.97, 95%CI 1.33-2.90). Age-adjusted rate of in-hospital mortality (12.4%) did not differ by gender (p=0.94). CONCLUSION: In a large Canadian population-based database, gender differences exist for utilization of diagnostic and therapeutic procedures following AMI. Further investigation is required to explore the reasons for these differences and potential impact on outcomes.

ABSTRACTS - Special Topics
Background: The relationship between obesity and mortality remains controversial. Measures of obesity have traditionally included BMI, waist to hip ratio (WHR), and waist circumference (WC). The new National Cholesterol Education Program (NCEP) guidelines include WC rather than BMI as the measure of obesity for identification of the metabolic syndrome. Different cut points were used for men (>102 cm) and women (>88 cm) to improve accuracy in order to examine the predictive value of the new guidelines, we investigated the relationship of WC to the presence of coronary artery disease (CAD) and all-cause mortality in men and women. Methods: Among a total of 3627 patients, 2307 men and 1220 women had BMI, WHR, and WC recorded at baseline and were followed for an average of 36 months. Cross-sectional (RR) and longitudinal analyses (HR) were performed in those with CAD (men n=1476, 64%), and women (n=505, 41.4%) at baseline, and on those without CAD. There was a total of 93 (6.2%) deaths, with 65 (2.6%) deaths among men and 28 (2.2%) deaths among women. Results: Using the NCEP waist cut point, the adjusted gender specific relative risk of CAD was 1.33 (95% CI=1.13-1.58) among men and 1.57 (95% CI=1.25-1.98) among women. The unadjusted gender specific HR for all-cause mortality was 1.29 (95% CI=0.79-2.10) among men and 4.31 (95% CI=1.66-13.91) among women. After adjusting for age, gender, low HDL, DM, and HTN, WC greater than 89 cm in men remained the only significant predictor of higher all-cause mortality (RR=3.57, 95% CI=2.10-6.66, p<0.001). Unadjusted WHR was found to be predictive of CAD (RR=2.01, 95% CI=1.71-2.36) and mortality (RR=1.64, 95% CI=1.05-2.55), but neither WHR nor BMI were significant predictors in our adjusted model. Conclusions: While a large WC was not an independent predictor of CAD pres- ence on cross-sectional review, WC was a significant and independent predictor of all-cause mortality in women on follow-up. WC is a better marker than BMI or WHR for pre dicting all-cause mortality in women.

Association Between Gender and Failing to Return to Full-Time Work After CABG

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Background: The question of whether gender is associated with returning to full time work after CABG has not been investigated thoroughly in the U.S. We examined whether women were more or less likely than men to resume their pre-operative full time jobs six months after undergoing a first CABG at a large urban hospital.

Methods: The study population included 44 women and 333 men who underwent CABG and who were working at a full-time job in the month before the hospitalization for CABG. The main predictor variable was gender, and the main outcome variable was failure to resume full time work within 6 months after the CABG procedure. Multivariable logistic regression was used to determine whether gender was associated with the failure to resume full time work, independent of 19 other medical and quality of life factors. Results: Compared to men, women who underwent CABG were slightly older and were more likely to have a history of hypertension and heart failure. Women were also more likely to have left main stenosis of >90%, insulin-treated diabetes, to have been hospital- ized in the past year, and to have a non-elective CABG. Depression levels were higher in women. At the time of the CABG procedure, end of life was lower as reflected by lower scores on the physical and mental component scales of the SF-36. Six months after the CABG procedure 22 (50.0%) of the 44 women had failed to return to full-time work while 89 (26.7%) of the 333 men had failed to resume full-time work. In a logistic regression model, females had a significantly higher odds of not resuming work when compared to men (female to male odds ratio 2.10, 95% CI 1.10-4.19, p < 0.05). Conclu- sion: Independent of other baseline factors that were significantly associated with the outcome (age, history of MI, left venricular ejection fraction, physical and mental component scales of the SF-36).

Conclusion: Compared to men, women are less likely to resume full-time work six months after undergoing a first CABG. Further study is required to determine the reasons for this gender difference.

CABG: Coronary Artery Bypass Grafting; MI: Myocardial Infarction; NCEP: National Cholesterol Education Program; WHR: Waist to Hip Ratio; WC: Waist Circumference; RR: Relative Risk; CI: Confidence Interval; CAD: Coronary Artery Disease, MI: Myocardial Infarction; N: Number; P: p Value; OR: Odds Ratio; HR: Hazard Ratio

ORAL CONTRIBUTIONS
861 Assessment and Outcomes in Acute Coronary Syndromes
Tuesday, March 19, 2002, 2:00 p.m.-3:30 p.m.
Georgia World Congress Center, Hall D1

861-1 Is Early Hospital Discharge Following Acute Myocardial Infarction Associated With Increased Mortality?
Alan K. Berger, Susan J. Duval, Russell V. Luepker, University of Minnesota, Minneapolis, Minnesota.

Background: There has been a steady decrease in both short and long-term mortality follow ing acute myocardial infarction during the past 15 years. The presumption of a prolonged survival in the early phase of an acute myocardial infarction along with economic constraints has led to a progressively shorter length of hospital stay. Hypothetically, we sought to deter- mine whether there was an association between decreasing hospital length of stay and early post-discharge mortality following acute myocardial infarction. Methods: The Minne- sota Heart Survey, developed in 1970, is a hospital surveillance project designed to assess the incidence and prevalence of acute myocardial infarction and trends in health care pro- cess and outcomes. The essential component is a large database of medical record abstractions of patients hospitalized in the Minneapolis metropolitan area with acute myocardi- al infarction. Surveys from 1985, 1990 and 1995 were utilized in this study to assess trends in early and late mortality, case fatality, and hospital length of stay. Trends across sur- veys were compared using the chi-square statistic. Continuous data were expressed as mean ± standard deviation and compared with the Kruskal-Wallis test. Results: 4516 patients with validated acute myocardial infarction were identified from the combined 1985 (n=1364), 1990 (n=1763) and 1995 (n=1999) surveys. In-hospital case fatality declined from 12.3% in 1985, to 10.3% in 1990, to 7.7% in 1995 (p=0.0003). Thirty-day crude mortality for 1985, 1990 and 1995 was 13.8%, 12.1% and 8.4%, respectively (p<0.0001). The mean length of stay for these same time frames were 11.3±6.0, 9.5±7.2 and 7.5±6.2 days. The 7-day post-discharge mortality rates were 1.0% (n=16), 1.5% (n=22), and 0.4% (n=3), respectively. There was no trend in hospital length of stay following acute myocardial infarction, and there has not been an associated increase in early post-discharge mortality.

2:00 p.m.

861-2 Is There a Role for Troponin-I in the Risk Stratification of Stable Asymptomatic Hemodialysis Patients?

Background: Patients on hemodialysis have a high mortality rate primarily due to cardio-vascular events. Evidence suggests that troponin-I (cTnI) levels may have a role in predict- ing these adverse cardiovascular events.

Methods: All chronic hemodialysis patients at two teaching hospitals in New York were fol-