Background: Controversy continues about gender differences and outcome following coronary revascularization. While social support has been shown to influence functional recovery following revascularization procedures, little data exists to describe temporal trends in social support after revascularization by gender.

Methods: This study prospectively followed 271 consecutive patients undergoing PCI and 224 consecutive patients undergoing CABG, at monthly intervals for 6 months after the procedure. The ENRICH Socio Psychological Support Inventory (ESSI) was used to assess social support at baseline and throughout follow up. Higher scores on the ESSI indicate higher social support. A repeated measures analysis of ESSI score over time was conducted and slope analysis, controlling for age, were performed to assess change in support over time.

Results: Social support at baseline was similar in males (n=149) and females undergoing CABG (30 ± 5 and 29 ± 4; p=0.14). However, females patients undergoing PCI (n=88) had lower baseline social support (28 ± 5 vs 30 ± 6 for males; p =<0.001). Males showed no significant change in social support score over 6 months of follow up after either CABG (30.58 at baseline and 30.03 at 6 months; p=0.13) or PCI (29.76 at baseline vs. 29.66 at 6months; p=0.7). Female patients however showed a significant drop in their social support scores both after CABG (28.45 at baseline vs. 26.66 at 6months; p=0.001) and PCI (27.36 at baseline vs. 25.32 at 6 months; p< 0.001). The slope of scores for women, even after controlling for age, was significantly negative while it was flat for men.

Conclusion: In contrast to males, female patients undergoing coronary revascularization, experience decrease in social support following the procedure. More work is needed to define interventions that can preserve or improve the social support for women at a level comparable to that observed in men.

1191-164 Abnormal 31P NMR Stress Test is Predictive of Myocardial Events: A Report From the NIH-NHLBI Sponsored Women's Ischemia Syndrome Evaluation(WISE)

Gerald M. Pohost, Steven D. Buchthal, B Della Johnson, Hee-Won Kim, Jan A. den Hollander, Marion B. Olson, Kate N. Scott, Carl J. Pepine, Sunil Maniak, Sheryl F. Kelsey, Leslas Shaw, Noel Bairey-Merz, University of Alabama at Birmingham, Birmingham, Alabama.

Background: We reported that 20% of women with CP but no significant epicardial CAD had a handgrip-induced decrease in myocardial PCR/ATP ratio (31P-NMR), consistent with ischemia. The present study evaluates the predictive ability of 31P-NMR in this population.

Methods: Subjects were recruited from women undergoing coronary angiography and divided into three Groups: A - women with no or minimal CAD (<50% stenosis) and normal 31P-NMR test, B - women with no or minimal CAD and abnormal 31P-NMR (a decrease of >20% in PCI/ATP was established as the threshold from previous studies of age and weight matched control women), and C - women with ≥50% stenosis. 31P-NMR data were acquired before, during and after handgrip stress. Standard epidemiologic methods for follow-up were employed including ascertainment of death, MI, angina/hospitalization, PTCA, CABG, angioamr, CHF, stroke, or CABG.

Results: Of the 975 women, 19% of them had abnormal 31P-NMR. Subjects in group B were 2.8 times more likely to have a subsequent myocardial event than group A (p=0.0001, ANOVA). Those in group C were five times as likely to have a subsequent myocardial event (fig. 1). The risk ratio of Group B compared with Group A was significantly greater (p=1), but was not different when compared with all women in WISE (p=0.77).

Conclusions: These data demonstrate that the 31P-NMR results are predictive of adverse coronary events. Further evaluation into underlying pathophysiology and possible treatment options of these women is indicated.

1191-165 Gender Differences in Cardiac Care Following CABG or PCI for Acute Myocardial Infarction

Lauren F. Tobie, Karin H. Humphries, Christopher R. Thompson, Ronald G. Carew, Min Gao, Christopher E. Bullar, University of British Columbia, Vancouver, British Columbia, Canada.

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 (n=200) 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 follow-up period, were obtained from linkage with the BC Cardiac Registry and 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%; OR=0.01), but were equally likely to undergo a nuclear scan (15.6% vs 16.7%; OR=0.80). Rates of angiography differed significantly (37.6% vs 50.0%; OR=0.01). 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, (51.8% vs 56.5%; OR=0.24). 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 (OR=4.2) did not differ by gender (p=0.94). CONCLUSION: In a large Canadian population-based dataset gender differences exist for utilization of diagnostic and therapeutic modalities following AMI. Possibility of percutaneous revascularization of coronary interventions was comparable, but rates of CABG were significantly lower in women than men, even after adjustment for age and comorbidities. Further investigation is required to explore the reasons for these differences and potential impact on outcomes.

1191-166 In-Hospital Outcome is Improved in Women After Percutaneous Coronary Revascularization Procedure and Is Similar to That in Men in the Era of Routine Platelet Glycoprotein IIb/IIIa Inhibition and Stenting

Vladimir Drayev, Cynthia Jackieoulos, John Ross, Leonard Schwartz, Karen Mackie, Peter McLaughlin, Alastair Barcelo, Paul D. Drayev, Christopher Ing, Peter Seidelin, Toronto General Hospital, University Health Network, Toronto, Ontario, Canada.

Background: Prior studies have suggested higher rates of adverse events (AE) after percutaneous coronary intervention (PCI) in women compared to men. The purpose of this study was to compare the changes in utilization of stents and platelet GP 2b/3a Inhibitors (GPI) in women compared to men since 1994 and what effects these changes may have had on in-hospital AE in a large tertiary-care interventional program. Methods: All data were collected prospectively. Patients undergoing PCI at the Toronto General Hospital from April 1994 to March 2001 were divided into 3 time-period cohorts: April 1994 to March 1996 or pre-GPI use (P1), April 1997 to March 1999 or selective GPI use (P2), and April 2000 to March 2001 or routine GPI use (P3). Rates of a combined ACE consisting of in-hospital mortality, non-fatal MI, abrupt closure and CABG were compared in women and men in the 3 periods. Results: Of the 9,739 cases registered, 3476 were performed in P1, 4429 in P2 and 1814 in P3, and of these 2039 were in women and 704 were in men. Women were older than men (54±11 vs. 59±11 years; p<0.001). Women were more likely to undergo PCI at all levels of risk (28.2% vs. 30.1%, p=0.0008), but were more likely to be diabetic (27.1% vs. 19.6%, p<0.0001). Proportion of diabetic women increased from 25.2% in P1 to 32.0% in P3 (p=0.02) while the proportion of diabetic men remained stable at 16.8% in P1 and 20.9% in P3 (p=NS). Rate of stent use in women vs. men was 32.7% vs. 33.8% in P1, 79.5% vs. 81.0% in P2, and 91.3% vs. 90.8% in P3. Rate of GPI use in women and men was 0% in P1, 15.3% vs 16.8% in P2 (all sibdocia), and 90.1% vs 90.7% in P3 (87.0% sibdocia, 3.5% abciximab). CE occurred in women vs. men as follows: P1 6.7% vs. 4.5% (p=0.012), P2 4.6% vs. 3.1% (p=0.014), in P3 2.9% vs. 3.1% (p=NS). Conclusions: Women were more likely than men to suffer an adverse event hospital CE after PCI in the initial period of selected stent use and prior to the introduction of GPI, as well as during a period of routine stenting and selected use of GPI. While the occurrence of CE has decreased in both sexes over time, proportionally it remains higher in women in whom the occurrence of CE is now similar to that in men. This improvement in outcome may be related to the strategy of routine use of stents and GPI.

1191-167 Secondary Prevention After MI: Is the Gender Gap Closing? A Population-Based Study in Olmsted County, Minnesota

Brandi J. Wilt, Steven J. Jacobsen, Susan A. Westen, Veronique L. Roger, Mayo Clinic, Rochester, Minnesota.

Background: Studies suggest that women may be evaluated and treated less aggressively for coronary disease as compared to men, particularly when the diagnosis is less established. While the benefits of secondary prevention have been shown for both sexes, the lower use of prevention programs among women has been reported but it is uncertain whether use is independently associated with sex versus related to coexisting morbidity. Therefore, this study was undertaken to examine the use of secondary prevention programs after incident myocardial infarction (MI) to test the hypothesis that female gender is independently associated with lesser use of rehabilitation after a definite coronary event. Methods: MIs were validated using epidemiologic criteria with enzyme values, cardiac pain, and Minnesota coding of the ECG. The entire community medical record available