MYOCARDIAL ISCHEMIA AND INFARCTION

SEX DIFFERENCES IN PRESENTATION WITHOUT CHEST PAIN FOR CONFIRMED MYOCARDIAL INFARCTION ARE ATTENUATED WITH ADVANCING AGE IN THE NATIONAL REGISTRY OF MYOCARDIAL INFARCTION (NRMI)

ACC Poster Contributions
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Monday, March 15, 2010, 3:30 p.m.-4:30 p.m.

Session Title: Sex Differences in Evaluation, Treatment and Outcomes in Patients with Acute Coronary Syndromes
Abstract Category: Unstable Ischemic Syndrome--Clinical
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Background: Women are generally older than men at hospitalization for myocardial infarction (MI). Few studies have adjusted for age in examining sex differences in clinical presentation of MI. To our knowledge, no studies have simultaneously examined the interaction of age and sex to symptom presentation of MI.

Methods: We analyzed data from 1,143,513 consecutive MI patients (481,581 female and 661,932 male) in the NRMI (1994-2006). Transfer patients were excluded from the analysis due to incomplete reporting. Multivariate models were developed to examine the predictors of MI presentation without chest discomfort by sex and age, adjusting for other baseline characteristics, and past medical and cardiac history.

Results: The proportion of MI patients who presented without chest pain was higher in women than men (38.1% vs 30.7%, P<0.001). Age specific and multivariate analyses indicate a strong interaction between age and sex, with sex-specific differences in MI presentation without chest discomfort becoming progressively smaller with advancing age (see table):

<table>
<thead>
<tr>
<th>MI Patients Without Chest Discomfort</th>
<th>Adjusted Odds Ratio (Women vs. Men)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>&lt;45y</td>
<td>45-54y</td>
</tr>
<tr>
<td>38.1%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>

P<0.001 for all comparisons

Conclusions: Age is an important factor in examining sex differences in MI presentation. Overall, women are more likely than men to present without chest discomfort. However, the sex differences in atypical presentation are more pronounced in younger MI patients and markedly attenuated with increasing age.