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SEX-SPECIFIC TRENDS IN HOSPITALIZATIONS AMONG YOUNG PATIENTS WITH ACUTE MYOCARDIAL INFARCTION IN UNITED STATES, 2001-2010

Poster Contributions

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Background: Studies documenting marked declines in acute myocardial infarction (AMI) hospitalization and mortality rates have directed little attention toward younger patients, particularly those in their 30s and 40s. This group represents a small percentage of all patients with AMI, but a substantial total number of individuals.

Methods: We calculated population-based AMI hospitalization rates using data from Nationwide Inpatient Sample and Census from 2001 through 2010 for patients aged ≥ 30 years, dividing them into 5 year subgroups, using the survey data analysis method. We restricted further analyses to patients aged 30-54 years for focus on sex and race trends in co-morbidities and in-hospital mortality rates.

Results: While AMI hospitalization rates significantly declined among age groups ≥ 55 years, no significant declines were noted in the age groups <55 years overall and stratified by sex. In fact, in age-sex-race analyses, we observed significant increases in hospitalization rates of black men aged 35-39 years, 40-44 years, 45-49 years and 50-54 years (81%, 32%, 20% and 34% respectively); and in white women aged 40-44 years and 45-49 years (36% and 30% respectively). Further analyses among patients aged <55 years revealed that, women had co-morbidities more frequently and the prevalence increased among both sexes through the study period. Also, in-hospital mortality was higher among women as compared with men across all age groups in this population. However, significant declines were noted through the study period among women aged 35-39 years, 40-44 years, 45-49 years and 50-54 years (-67%, -43%, -15%, -29% respectively), but not among men.

Conclusion: Unlike significant declines in AMI hospitalizations noted among the elderly, overall and sex-specific hospitalization rates for young patients have not declined over the past decade, and rather increased among certain subgroups. Although significant improvement in in-hospital mortality was seen among women, their rates remained higher than men. These results suggest that AMI in younger patients have distinct features and trends and that we need to understand biological, clinical and social factors that may underlie them.