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CHARACTERISTICS OF PATIENTS WITH ACUTE CORONARY SYNDROME: WHERE IS THE GENDER GAP?

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Objective

Prior studies assessing the disparity in treatment of acute coronary syndrome have consistently shown better outcomes for men than women. In an effort to search for clues that lead to this disparity, we sought to describe the gender differences in the historical features, triage level, and method of arrival in emergency department (ED) patients with non ST elevation myocardial infarctions (NSTEMI).

Methods

This is a retrospective matched sample chart review of patients presenting with a NSTEMI between 9/2005 – 5/2006 at a tertiary suburban hospital. A total of 100 ED patients were randomly selected and matched by gender and site. Charts were reviewed for presenting symptoms, comorbidities, time from symptom onset, arrival mode, emergency severity index (ESI), medications taken, and allergies to medications. Differences in gender were analyzed using chi-square and Mann-Whitney statistical tests. Statistical analyses were performed using SPSS 15. A p-value at or less than 0.05 was considered a statistically significant difference (SSD).

Results

Of the 100 charts reviewed, 50% were female, 95% white, with a mean age of 70 ± 15.86 years. There is no SSD in age ($p=0.117$) between females (F) (72.56 ± 17.76 yrs.) and males (M) (67.58 ± 13.42 yrs). Fifty-five patients arrived by ambulance. There was no SSD between F (62%) and M (48%) in mode of arrival ($p=0.159$). Seventy percent (64) were ESI 2, 24% (22) ESI 3, 5.5% (5) ESI 1, and 0.5% (1) ESI 4 (level 1 is most ill in the ESI system). There was no SSD between genders in ESI ($p=0.611$). Thirty-one percent of patients (27) indicated time of symptom onset of < 4 hours (hrs), 69.3% (61) indicated > 4 hrs. There is no SSD ($p=0.709$), between F (29% < 4 hours/71% > 4 hours) and M (32.5% < 4 hours/67.5% > 4 hours).

Common presenting symptoms included short of breath (SOB) (51), chest pain (CP) (45), SOB and CP (28), referred CP (16), fatigue (15), and dizziness or lightheadedness (14). No SSD in presenting symptoms were indicated between genders. Fifty-four percent (27) F, and 48% (24) M presented with SOB ($p=0.548$). Forty percent (20) F and 50% (25) M complained of CP ($p=0.359$). Thirty percent (15) F and 26% (13) M presented with both SOB and CP ($p=0.656$). Thirty percent of the patients did not have a classic cardiac presenting complaint (e.g. CP, SOB). In these nontraditional patients, there was no gender SSD; 34% (17) F and 26% (13) M ($p=0.119$).

Common medications included beta-blockers (45), aspirin (36), psychiatric medications (18), pain medications (16), blood thinners (13), and asthma medications (9). F were more likely (8%) than M (1%) to indicate asthma med ($p=0.013$). No additional SSDs were noted between genders for current medications taken.

Common comorbidities included hypertension (60), diabetes (42), prior coronary artery disease (41), tobacco use (29), and hyperlipidemia (27). F were more likely to indicate prior mental health history (11%) than M (4%) ($p=0.05$). No additional SSDs existed between genders for individual or multiple comorbidities.

Conclusions

No significant gender differences were noted in presenting complaints, time of symptom onset, mode of arrival or triage level in patients presenting to the ED who had a NSTEMI. In this limited study, females were more likely to self report prior mental health history and take asthma medications. Regardless of gender, the majority of these NSTEMI patients presented greater than 4 hours after symptom onset and many did not have chest pain and/or shortness of breath.

