Letter to the Editor

# A Memorandum of "World Heart Day 2012": Myocardial Infarction Mortality in Women in Birjand, 2008-2009

September 29th, 2012 is entitled "World Heart Day" and the theme of the current year is "One World, One Heart, One Home, and Focus on Women and Children".

Cardiovascular diseases are the most common causes of mortality in women and men.[1] Various studies have probed into the differences in the clinical symptoms, risk factors, and prognoses between male and female patients with acute myocardial infarction (AMI).[2]

One study on AMI patients in Birjand, Iran (2008-2009) reported the following results:

Out of 471 patients, 136 (28.9%) cases were women and 335 (71.1%) were men. The mean age of the females and males was 64.6 ± 13.6 years and 61.4 ± 13.95 years, respectively; p value = 0.001. The most prevalent cardiac risk factors in the women and men were hypertension (54.4% in women, 32.2% in men; p value < 0.001), dyslipidemia (30.1% in women, 18.5% in men; p value = 0.006), diabetes mellitus (18.4% in women, 14.9% in men; p value = 0.35), and smoking (3.7% in women, 22.7% in men; p value = 0.04).

Table 1 shows that the consumption of Aspirin and beta blockers was lower in the women than in the men, but there was no other difference between the two genders with respect to other treatments. In-hospital mortality was 11.5%: 8.4% in the men and 19.1% in the women (p value = 0.001). One-month mortality was 12.9%; it was significantly higher in the women than in the men (22.1% in women, 9.2% in men; p value ≤ 0.001). Finally, in-hospital mortality and one-month mortality after AMI were significantly higher in the women.

Factors such as old age, higher prevalence of diabetes mellitus and hypertension, delayed referral of women to physicians, and difference in clinical symptoms can be play a decisive role in this regard.[3] Indeed, women do not tend to deem cardiovascular diseases as their most fatal disease and thus fail to take their risk factors into consideration; that is why cardiovascular diseases are diagnosed later in women and are more acute. It is, therefore, necessary that educational programs be devised to raise women's knowledge about these fatal diseases.

Table 1. Comparison of drug therapy in patient with acute myocardial infarction (AMI) according to sex

| Drug | Female n (%) | Male n (%) | P value |
|---|---|---|---|
| Beta-blocker | 77 (56.6) | 222 (66.3) | 0.04 |
| ASA | 107 (78.7) | 302 (90.1) | 0.01 |
| Statins | 74 (54.4) | 213 (63.6) | 0.06 |
| ACE-I | 40 (29.4) | 105 (31.3) | 0.68 |
| Streptokinase | 12 (8.8) | 46 (13.7) | 0.14 |
| Clopidogrel | 27 (19.9) | 90 (26.9) | 0.11 |
| Nitrate | 104 (76.5) | 280 (83.6) | 0.07 |

ASA, Acetylsalicylic acid; ACE-I, Angiotensin-converting enzyme inhibitors

## References

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