


**Women and Coronary Artery Disease**

The publication of Murabito et al discusses the Framingham data on coronary disease that has been used as a basis for looking at the presentation and prognosis of women with coronary disease. In their article, they acknowledge that the clinical diagnosis of angina in women is frequently incorrect, with perhaps half of these women having no significant epicardial coronary disease. If one reduces the number of women with an anginal presentation of coronary disease by a factor of 50% (as perhaps only half of these women actually had coronary disease), then Table 1 would show that the percent of women with angina as their initial presentation of coronary disease is 31%. This is similar to the 32% observed in men. With regard to prognosis, it has been shown that women with chest pain and normal coronaries have a good prognosis. If one assumes that the myocardial infarctions and coronary heart disease deaths in women with angina occurred in those women who actually have coronary disease (roughly half the population), then the rates of these events in this population would be double the values shown in Table 3. This would be a 2-year rate of myocardial infarction of 12.4% and a 10-year rate of 35.6%, similar to the rates of 14.3% and 33.4% observed in men. The rate of coronary heart disease death would be 7.6% at 2 years and 33.4% at 10 years as compared with 5.5% and 28.2% for men.

These dramatic changes in presentation rates and outcomes given a correction factor of 50% are crude estimates. The actual number of women with angina who actually had coronary disease cannot be determined from the available data. This reinforces the urgent need for better data on cardiovascular disease in women, with a more rigorously defined database. Data acquired on a clinical basis without angiographic confirmation of coronary disease must be used with extreme caution and should not be construed to mean that women with angina and coronary disease have a benign prognosis.

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**References**


**Reply**

We strongly agree with Dr Horton’s concern regarding the clinical diagnosis of angina in women. We repeatedly cautioned that after the onset of angina, women are expected to fare better than men because fewer women than men with clinically diagnosed angina actually have underlying coronary disease.

While we agree that there is greater misclassification of coronary disease status in women with clinically diagnosed angina than in men, we believe that the 50% misclassification error suggested by Dr Horton is excessive. The correction factor of 50% suggested by Dr Horton was derived from a group of women under 50 years of age with clinical angina by history, which was defined as “pain somewhere in the upper half of the body precipitated by walking and relieved within 15 minutes by rest.” A study sample more representative of our population comes from the Coronary Artery Surgery Study Registry, where the prevalence of significant coronary disease was 81% in women 60 to 69 years of age with definite angina. In that study, significant coronary artery disease occurred more frequently in older patients as well as in those with a