

How to Reduce the Burden of Coronary Heart Disease in Women?

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Coronary heart disease is the leading cause of death worldwide. It is estimated that more than 250,000 women die every year in the United States due to myocardial infarction [1]. This disease causes 50% more deaths than cancer. The incidence of coronary heart disease has remained unchanged in the last decade for women while it has been decreasing in men [2]. How can we explain this difference and what can be done to decrease the burden of heart disease in women?

The first step is to implement governmental policies to increase education on cardiovascular risk, because most women are unaware of the key facts about cardiovascular prevention and how to start a healthy life style. This must be done since early childhood.

The second step must focus on early detection of women at risk, including the evaluation of traditional risk factors, the increasing rates of cigarette smoking, physical inactivity, obesity, hypertension, and metabolic syndrome which have been reported in younger women. Some of these aspects can be modified thus contributing to decrease the incidence of this disease. But traditional risk factors only explain two thirds of coronary events and the Framingham risk score underestimates the risk in the female population. Therefore, novel risk factors are a promising field for research and intervention. For example complications associated with pregnancy like preeclampsia, diabetes, premature delivery and low weight at birth that had been related to premature coronary heart disease, make pregnancy an opportunity to detect women who need closer follow-up after the delivery in order to strictly control their cardiovascular risk [3-5].

The atypical presentation of acute coronary syndrome in women also contributes to the under-diagnosis of the disease. The evaluation of chest pain in women has been hampered by attempts to apply a "typical" angina definition derived from predominantly male populations which is why it is necessary to educate the healthcare personnel in order to increase awareness of the symptoms of the disease [6,7].

Women with ischemic heart disease also have a worse prognosis. They are more likely to die of cardiac arrest before hospital arrival, have more adverse outcomes, greater symptom burden, higher rate of functional disability compared to men despite higher frequency of non-obstructive coronary disease, this is worsened by differences in treatment between sexes. Recent studies have shown that women are less frequently treated with reperfusion therapy such as cardiac catheterization and medications that have changed the prognosis of the

disease resulting in suboptimal management and biases for women in today's healthcare environment [8-10].

In conclusion, we must change the paradigm of treatment for heart disease in women towards preventing it from early childhood, supporting firm government policies aimed at healthier life-styles in our population, addressing barriers to healthcare access by women and stimulating innovative research in coronary heart disease on gender-specific issues in order to decrease the burden of heart disease in the world.

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