Irregular heartbeat stronger risk factor for heart disease and death in women than in men

Cause unclear but results support more aggressive treatment of risk factors in women

An irregular heartbeat (known as atrial fibrillation or AF) is a stronger risk factor for stroke, heart disease, heart failure and death in women than in men, although the cause is unclear, finds a study in The BMJ this week.

Atrial fibrillation (AF) is associated with an increased risk of stroke and death in men and women, with an estimated 33.5 million people affected in 2010.

But a growing body of literature suggests that women and men experience risk factors for cardiovascular disease differently, including diabetes and smoking.

If correct, this would have substantial implications for estimating the AF burden, for the targeting of treatment to manage it, and for future research into causes of sex differences.

So an international team of researchers set out to estimate the association between AF and cardiovascular disease and death in women and men and to compare the sexes.
They analysed the results of 30 studies involving over 4 million participants that reported sex specific associations between atrial fibrillation and all cause mortality, cardiovascular mortality, stroke, cardiac events (cardiac death and non-fatal myocardial infarction), and heart failure.

Differences in study design and quality were taken into account to minimise bias.

Atrial fibrillation was associated with a 12% higher relative risk of all cause mortality in women and a significantly stronger risk of stroke, cardiovascular mortality, cardiac events, and heart failure. Results were broadly consistent after further sensitivity analyses.

It is unclear what could cause these differences between women and men, say the authors.

With respect to clinical care, they say their results support the development of a specific risk score for AF in women. With regard to public health policy, they say estimation of the global and regional burden of AF should be independent of sex, while “allocation of public health resources for prevention and treatment of AF should also consider the differential effects of AF by sex.”

Finally, they call for future research to determine the underlying causes of the observed sex differences.

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Note to Editors
Research: Atrial fibrillation as risk factor for cardiovascular disease and death in women compared with men: systematic review and meta-analysis of cohort studies
http://www.bmj.com/cgi/doi/10.1136/bmj.h7013
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