

Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

Reviewers

Addiction

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Director Lifeline (North)
RCGP regional lead
substance misuse

Cardiovascular disease

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GP Watercress Medical,
Medstead
GPwSI Cardiology,
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Diabetes

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Mental health

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Obstetrics and gynaecology

Dr Chris Barclay
GP with an interest
in O&G, Suffolk

Paediatrics

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GP with an interest
in O&G, Suffolk

Sexual health

Dr Richard Ma
GP with an interest
in sexual health and
NIHR Research Fellow,
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Smoking cessation

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Urology

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Cardiovascular disease

AF is a stronger predictor of stroke and death in women

Women with atrial fibrillation (AF) have double the risk of stroke and death from cardiovascular disease compared with men, a systematic review and meta-analysis has shown.

The authors analysed cohort studies published between January 1966 and March 2015 that reported sex-specific associations between the arrhythmia and all cause mortality, cardiovascular mortality, stroke, cardiac events (cardiac death and non-fatal myocardial infarction), and heart failure.

Studies had to have a minimum of 50 patients with, and 50 without, AF to be included in the meta-analysis. A total of 30 studies with 4,371,714 patients were identified and analysed.

In women compared with men AF was associated with increased relative risks (RR) as follows:

- double the risk of stroke
RR 1.99 (95% CI: 1.46-2.71)
- double the risk of cardiovascular mortality
RR 1.93 (95% CI: 1.44-2.60)
- 55% higher risk of cardiac events
RR 1.55 (95% CI: 1.15-2.08)

- 16% higher risk of heart failure
RR 1.16 (95% CI: 1.07-1.27)

- 12% higher risk of all cause mortality
RR 1.12 (95% CI: 1.07-1.17)

The authors conclude that AF is a stronger risk factor for cardiovascular disease and death in women compared with men.

It may be that women with AF are undertreated relative to men, they may respond to anticoagulants in a different manner and be more prone to complications associated with antiarrhythmic therapy.

However, a limitation of this study is that it was a meta-analysis of observational studies and as such any observed sex differences in the association of AF with risk of death and cardiovascular disease might be caused by unobserved confounding between the sexes.

Nevertheless these findings should act as a prompt for further research to determine if it is a causal association and to provide more detail as to the underlying mechanism.

The study authors conclude: 'Our results indicate that AF is associated with worse outcomes in women than in men.'

'The American Heart Association recently recommended the development of a specific risk score for stroke in women as some risk factors for stroke are unique to women, others are more prevalent in women, and others differentially increase the risk of stroke in women. These results support the development of such a score.'

'They also, however, show that AF is associated with an increased risk of all cause mortality, cardiovascular mortality, and cardiac events in women relative to men.'

'Therefore, it might be appropriate for clinicians to consider more aggressive treatment of risk factors in women with AF as they seem to be at higher proportional risk of death and cardiovascular disease.'

DR PETER SAVILL

Emdin CA, Wong CX, Hsiao AJ et al. Atrial fibrillation as risk factor for cardiovascular disease and death in women compared with men: systematic review and meta-analysis of cohort studies. *BMJ* 2016;352:h7013 »

See also lead article 'Underestimating risk in women delays diagnosis of CVD,' p11