



## **Female gender increases stroke risk in AF patients aged >75 years by 20% - ESC press release - ESC Congress 2012**

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The results suggest that female gender should not be included as an independent stroke/thromboembolism (TE) risk factor in guidelines or risk stratification schemes used in treatment of patients with atrial fibrillation.

The increased risk of stroke and TE in patients with atrial fibrillation depends on additional risk factors, and female sex has been suggested as one such risk factor. The 2010 ESC Guidelines for the management of atrial fibrillation consider female gender a minor risk factor for stroke/TE, and recommend oral anticoagulants for females <65 years with one additional minor risk factor, and females 65-74 with no additional risk factors. Oral anticoagulants can effectively lower the risk of stroke/TE for patients with atrial fibrillation, but also increase the risk of bleeding disorders and should therefore be given only to patients at high risk of stroke/TE.

The aim of the study was to investigate the association between female gender and stroke/TE in a large nationwide cohort. Previous studies on this subject have delivered diverging results. Some studies have found an increased risk with female gender, while others have not. The novelty of the current study is that the risk of stroke/TE associated with female gender was investigated in a very large population and in a range of age intervals.

The large study population was assembled by linking patients in national Danish registers, using the personal registration number given to all Danish citizens. The researchers identified patients with nonvalvular atrial fibrillation between 1997-2008 who were not treated with oral anticoagulants and subdivided the population into three age intervals: <65, 65-74, and ≥75 years. The specific age groups were chosen because they are used as cut-off points in atrial fibrillation risk stratification schemes (e.g. CHA2DS2-VASc) and in current guidelines.

The study included 87,202 nonvalvular atrial fibrillation patients, of whom 44,744 (51.3%) were female.

Female gender did not increase the risk of stroke in patients aged <75 years. The relative ratio associated with female gender was 0.89 (95% confidence interval: 0.70-1.13) for patients aged <65 and 0.91 (0.79-1.05) for patients aged 65-74 years.

For patients aged >75 years, female gender was associated with a 1.20 (1.12-1.28) increased risk of stroke after 1 year of follow up. The 1.20 corresponds to a 20% increased risk in this age group.

“Our study showed that female sex was only associated with an increased risk of stroke for AF patients aged ≥75 years,” said Mr Mikkelsen. “This suggests that female sex should not be included as

an independent stroke/TE risk factor in guidelines or in risk stratification schemes used in treatment of patients with atrial fibrillation. Female patients >75 years of age qualify for anticoagulation therapy regardless of gender because age  $\geq 75$  years is an independent risk factor for stroke/TE.”

He added: “Our findings could have an impact on current guidelines used in the treatment of atrial fibrillation; however more research is needed to confirm our results.”

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### **Notes to editors**

Please note that picture and CV from the author, abstract, picture and CV from spokesperson can be found here. <http://www.escardio.org/about/press/esc-congress-2012/press-conferences/Pages/first-second-hand-smoke-electronic-cigarettes.aspx>

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