

## Gender-specific medicine watch

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### Atrial fibrillation and stroke: women are most at risk

In women with atrial fibrillation, the repercussions of stroke are worst in women: these are the results of an Austrian research published in *Stroke*.

One of the main risks for subjects with atrial fibrillation (AF) is stroke which in these cases also tends to be more severe than those associated with other causes.

It is also known that women with atrial fibrillation have a higher risk of stroke than men. It is not yet clear if the severity of stroke differs between men and women with atrial fibrillation.

In order to explore this aspect, an Austrian study analysed the data relating to 63563 patients diagnosed with acute ischemic stroke in the Austrian Stroke Unit Registry who were treated at Austrian stroke units (March 2003-January 2016). Atrial fibrillation was documented in 18962 subjects (29.8%) and, in these subjects, strokes were more severe: this means that in these cases there was a greater likelihood to suffer long-term adverse effects, such as paralysis, language problems, and memory loss. Examining gender differences showed that stroke in women with fibrillation was more severe (NIH Stroke Scale, 9) than in men with atrial fibrillation (NIH Stroke Scale, 6). This gender difference in stroke severity was independent of age and was not present in stroke not associated with atrial fibrillation.

The authors observed "We have demonstrated that the association described above between female gender and severity of stroke is significant only in the presence of atri-

al fibrillation and does not extend to men and women without atrial fibrillation," and added:

"Since the extent of neurological deficit is the most important predictor of long-term post-stroke functional disability, gender differences in patients with atrial fibrillation should be further explored. Women with AF do not only have an increased risk of stroke when compared with men, but also experience more severe strokes."

In this regard, Valeria Caso, President of the European Stroke Organization, observes: "The study clearly shows that AF is a pathology that typically affects women. We already knew from the CHADS-VASC score that women with AF have an increased risk of stroke, but now we also know that AF causes more severe stroke in women regardless of age."

What are its implications for clinical practice? The data of the study published in *Stroke* support a greater adherence to current guidelines. Un-

deruse of oral anticoagulants should be avoided, especially in women. The validity of this warning is corroborated by the results of the recent multicenter RAF study (Early Recurrence and Cerebral Bleeding in Patients with Acute Ischemic Stroke and Atrial Fibrillation) published on the *European Stroke Journal* that involved 29 Stroke Units in Europe and in Asia: "We observed that women were treated less than men before cardioembolic stroke. The same phenomenon was observed at discharge, although they were younger," as explained by Valeria Caso who participated in the study.

### Sources

- Lang C et al. Do women with atrial fibrillation experience more severe strokes? *Stroke* 2017;48:778-80 doi:10.1161/STROKEAHA.116.015900
- Antonenko K, Paciaroni M, Agnelli G et al. Sex-related differences in risk factors, type of treatment received and outcomes in patients with atrial fibrillation and acute stroke: Results from the RAF-study (Early Recurrence and Cerebral Bleeding in Patients with Acute Ischemic Stroke and Atrial Fibrillation). *European Stroke Journal*, First Published March 1, 2017; pp 46-53.

