

## Žene i fibrilacija atrija – slijedimo li trendove u svijetu?

### Atrial fibrillation in women – are we following global trends?

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**KLJUČNE RIJEĆI:** fibrilacija atrija, žene, smrtnost.

**KEYWORDS:** atrial fibrillation, women, mortality.

**CITATION:** Cardiol Croat. 2018;13(11-12):327. | <https://doi.org/10.15836/ccar2018.327>

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**Uvod:** Fibrilacija atrija (FA) rijđe se javlja kod žena (0,04%) u usporedbi s muškarcima (0,06%). Nekoliko studija pokazalo je kako žene s FA češće imaju atipične simptome, lošiju kvalitetu života, veći rizik za pojavu moždanog udara, kako su u liječenju češće pobjrgnute kontroli frekvencije u usporedbi s kontrolom ritma, a također su bile manje zastupljene u studijama o direktnim antikoagulantnim lijekovima (DOAK).<sup>1-3</sup> Primarni cilj ovog istraživanja bio je pokazati iskustva u prevenciji tromboembolijskih incidenata i praćenju žena s paroksizmalnom i perzistentnom FA.

**Bolesnici i metode:** U istraživanje bilo je uključeno 597 bolesnika koji su bili hospitalizirani u Kliničkoj bolnici Dubrava od travnja 2011. do listopada 2017. godine. Od ukupnog je broja 311 bolesnika bilo muškog spola, a 287 ženskog spola. Nije bilo značajne razlike u broju žena i muškaraca s paroksizmalnom odnosno perzistentnom FA. Žene su pri uključivanju u studiju bile starije od muškaraca (70,8 vs 62,9 godina). Ukupno je 217 muškaraca i 245 žena imalo arterijsku hipertenziju, a 56 muškaraca i 54 žene je imalo šećernu bolest tip 2. Nije bilo razlike u indeksu tjelesne mase i u procijenjenoj brzini glomerularne filtracije (28,18 vs 28,87 odnosno 70 vs 60) kao ni u veličini lijeve pretkljetke (4,29 vs 4,22). S obzirom na CHA<sub>2</sub>DS<sub>2</sub>VAsc „score“, čak 35,5% muškaraca nije imalo indikacije za antikoagulacijsko liječenje. Očekivano, žene su imale veći CHA<sub>2</sub>DS<sub>2</sub>VAsc „score“. Nije bilo statistički značajne razlike među vrijednostima HATCH i LADS „score“-a. Srednje vrijeme praćenja bilo je 30 mjeseci, a nakon tog vremena nije bilo statistički značajne razlike u progresiji u permanentnu FA (74 muškarci vs 87 žena). No, i nakon prilagodbe za dob, opća smrtnost kao i smrtnost povezana s FA kod žena je bila značajno veća. Nije bilo statistički značajne razlike u stopi krvarenja između žena i muškaraca. Žene su značajno češće u terapiji imale varfarin nego DOAK.

**Zaključak:** Ovo je istraživanje pokazalo kako smo u skladu s negativnim svjetskim trendovima što se tiče prevencije tromboembolijskih incidenata kod bolesnica s FA. Ženama smo rijeđe propisivali DOAK unatoč njihovom povećanom tromboembolijskom riziku. Možemo li utjecati na smrtnost vezanu uz AF kod žena ukoliko im češće budemo propisivali DOAK, potrebno je tek istražiti.

**Background:** Atrial fibrillation (AF) is less common in women (0.04%) compared to men (0.06%).<sup>1</sup> Several studies have shown that women with AF are more likely to have atypical symptoms, poorer quality of life, higher risk for stroke and they more frequently have rate compared to rhythm control, and they are less represented in the studies on direct anticoagulants (DOAC).<sup>1-3</sup> The primary objective of this study was to show our experience in the prevention of thromboembolic incidents and follow-up of women with paroxysmal and persistent AF.

**Methods:** Our study included 597 patients who were hospitalized in the University Hospital Dubrava from April 2011 to October 2017. Of the total number of patients, 311 of them were men and 287 were women. There was no significant difference in the number of women and men with paroxysmal or persistent AF. Women were older than men (70.8 vs 62.9 years). A total of 217 men and 245 women had arterial hypertension, and 56 males and 54 women had type 2 diabetes. There was no difference in body mass index and in estimated glomerular filtration rate (28.18 vs 28.87 and 70 vs 60), nor in the size of the left atrium (4.29 vs 4.22). Considering the CHA<sub>2</sub>DS<sub>2</sub>VAsc-score, as many as 35.5% of men had no indication for anticoagulant treatment. As we expected, women had higher CHA<sub>2</sub>DS<sub>2</sub>VAsc-score. There was no statistically significant difference between HATCH and LADS score between the groups. The mean follow-up time was 30 months, and in that time, there was no statistically significant difference in progression to permanent AF (74 males vs 87 women). Overall mortality as well as mortality associated with AF in women was significantly higher even after age adjustment. There was no statistically significant difference in bleeding rates between women and men. Women had warfarin in therapy more often than they had DOAC.

**Conclusion:** Our research has shown that we are in line with negative global trends regarding the prevention of thromboembolic incidents in women with AF. Women were rarely prescribed DOAC despite their increased thromboembolic risk. Could we influence the mortality associated with AF in women if we would prescribe them DOAC more, it is to investigate.

#### LITERATURE

- Chugh SS, Havmoeller R, Narayanan K, Singh D, Rienstra M, Benjamin EJ, et al. Worldwide epidemiology of atrial fibrillation: a Global Burden of Disease 2010 Study. Circulation. 2014 Feb 25;129(8):837-47. <https://doi.org/10.1161/CIRCULATIONAHA.113.005119>
- Scheuermeyer FX, Mackay M, Christenson J, Grafstein E, Pourvali R, Heslop C, MacPhee J, et al. There are sex differences in the demographics and risk profiles of emergency department (ED) patients with atrial fibrillation and flutter, but no apparent differences in ED management or outcomes. Acad Emerg Med. 2015 Sep;22(9):1067-75. <https://doi.org/10.1111/acep.12750>
- Benjamin EJ, Wolf PA, D'Agostino RB, Silbershatz H, Kannel WB, Levy D. Impact of atrial fibrillation on the risk of death: the Framingham Heart Study. Circulation. 1998 Sep 8;98(10):946-52. <https://doi.org/10.1161/01.CIR.98.10.946>

RECEIVED:  
October 26, 2018

ACCEPTED:  
November 5, 2018

