

# Effects of Anticoagulant Therapy and Frailty in the Elderly Patients with Atrial Fibrillation [Letter]

Huaguo Zhang<sup>1,\*</sup>, Song Wang<sup>2,\*</sup>, Xiaolian Jiang<sup>2</sup>

<sup>1</sup>Department of Nursing, Beijing Shijitan Hospital, Capital Medical University, Beijing, People's Republic of China; <sup>2</sup>West China School of Nursing/West China Hospital, Sichuan University, Chengdu, Sichuan, People's Republic of China

\*These authors contributed equally to this work

Correspondence: Xiaolian Jiang, West China School of Nursing/West China Hospital, Sichuan University, No. 37, Guoxue Lane, Wuhou District, Chengdu, Sichuan, 610041, People's Republic of China, Email [jiangxiaolianhl@163.com](mailto:jiangxiaolianhl@163.com)

## Dear editor

Recently, we have carefully read a published article entitled “Effects of Anticoagulant Therapy and Frailty in the Elderly Patients with Atrial Fibrillation” by Ding et al in *Clinical Interventions in Aging*.<sup>1</sup> This study is of great value and significance, making a certain contribution to promoting the development of clinical practice. We appreciate this research work and congratulate the authors of this good paper. The strengths of this study are as follows: (1) The effects of anticoagulation on the prognosis of older adults with atrial fibrillation (AF) remain controversial,<sup>2,3</sup> especially in the context of frailty, which poses certain difficulties for medical decisions. This study provides evidence support for medical decisions by exploring the effects of anticoagulant therapy and frailty in the older adults with AF, it found that anticoagulation was appropriate and beneficial for the older adults with nonvalvular atrial fibrillation (NVAf); (2) The authors conducted an overall geriatric assessment (eg, polypharmacy, frailty, daily living activities, cognitive status, nutritional status, fall risk, burden of comorbidities, AF stroke risk, and bleeding risk, etc)<sup>1</sup> for each enrolled patient, which helps to comprehensively understand the patients' condition; (3) The authors conducted a 12-month follow-up after the patients were discharged, and the follow-up data was relatively comprehensive, which is conducive to a comprehensive and dynamic understanding of the patients' prognosis after discharge; (4) The authors conducted in-depth discussion around their research findings and compared them thoroughly with other similar research. Additionally, they also provided some valuable recommendations for the management of older adults with AF.

Nevertheless, this study also has some limitations and several areas that need to be improved in the future, namely: (1) The readmission rate is also an important endpoint indicator, and we suggest that the authors incorporate this indicator into the research design in future studies; (2) Frailty is a dynamically changing symptom, and it is recommended that the authors need to measure this symptom repeatedly during the patients' follow-up; (3) There are several areas in the text that need to be corrected: (a) Page 250, regarding the description of “The Cox regression analysis (which was adjusted for age, sex, daily activity, fall risk, cognition, nutrition, comorbidities, stroke, and bleeding risk) showed that anticoagulation tended to increase the bleeding risk (HR 0.584, 95% CI 0.337–1.013,  $P=0.056$ ). Anticoagulation was not associated with thromboembolic events (HR 1.618, 95% CI 0.752–3.479,  $P=0.218$ ), or all-cause death (HR 1.091, 95% CI 0.639–1.863,  $P=0.750$ ; Table 4).”<sup>1</sup>, the values for HR, 95% CI or  $P$  are inconsistent with the results in Table 4 of page 251. The data in the text is incorrect. (b) Page 250, regarding the description of “After removing 33 patients from the present analysis who died in hospital and 11 patients who were lost to follow-up, 316 patients were followed.”<sup>1</sup> needs to be corrected; Because the sum of these numbers does not equal 361. Additionally, the authors need to check whether each data in Figure 1 is right. (c) Page 252, regarding the description of “Kim et al observed the effects of oral anticoagulants and different regimens on patients' prognosis, and determined that oral anticoagulants were associated with a lower risk of ischemic stroke (HR 0.91, 95% CI 0.86–0.97) and cardiovascular death (HR 0.52, 95% CI 0.99–0.55), with no difference in major bleeding events (HR 1.02, 95% CI 0.95–

1.10).”<sup>1</sup> the value for 95% CI of cardiovascular death is wrong. It should be “95% CI 0.49–0.55”;<sup>2</sup> (4) This study was only conducted in a single center with relatively small sample size, so the conclusion cannot represent the broader population.

The implications of this study for future research directions: (1) Including more hospitals with much more older adults with AF through a multicenter study is needed to draw convincing conclusions; (2) Conduct a longitudinal study on the frailty of older adults with AF and understand the trajectory of this symptom in this population; (3) Further extend the follow-up period of AF patients and observe the rate of long-term adverse events; (4) Further explore the effects of anticoagulation on the prognosis of older adults with AF, especially in the context of frailty, through systematic review/meta-analysis/umbrella review/randomized controlled trial methods; (5) Develop intervention programs to improve anticoagulation compliance in the older adults with AF to reduce the risk of adverse outcomes.

Although we appreciate this research work, we also need to clarify that in order to obtain more convincing conclusions and better guide clinical decision-making, further improvements are needed in the research design.

## Disclosure

The authors report no conflicts of interest in the communication.

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