Eligibility of heart failure patients with sinus rhythm for stroke prevention by antithrombotic in Thailand

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**Introduction**: Previously reported studies show that oral anticoagulation therapy (OAC) use in patients with heart failure (HF) and sinus rhythm (SR) is nonbeneficial for composite outcomes of death, myocardial infarction, or stroke. Recently in Rivaroxaban in Patients with Heart Failure, Sinus Rhythm, and Coronary Disease (CAD) Study (COMMANDER-HF trial), rivaroxaban has been shown to reduced risk of stroke, especially in patient with CHA2DS2VAS score >4. The aim of this study is to determine the percentage of HF patients who may be a candidate to be enrolled in mentioned study and may benefit from rivaroxaban in a real world practice in Thailand.

**Methods**: This is a retrospective, cross-sectional study of patients who survived to discharge after HF hospitalization from June 2017 to April 2018 at a single center tertiary care hospital in Thailand. The inclusion and exclusion criteria of COMMANDER-HF trial were used to determine the patient who may benefit from rivaroxaban. Patient characteristic including CHA2DS2VAS score were gathered. Data were presented in mean, standard deviation and percentage.

**Result**: A total of 197 patients were evaluated. Of these, 23 had inadequate information. Of 174 patients, 32.49%, 61.42% and 39.10% had left ventricular ejection fraction ≤40%, SR and CAD, respectively. When exclude patient with previous intracranial hemorrhage, GFR <20 or current OAC use, only 9 patients (5.2%) were a candidate to be enrolled in COMMANDER-HF trial with 6 patients have a CHA2DS2VAS score of > 4.

**Conclusion**: Even though COMMANDER-HF trial showed benefit of rivaroxaban in patient with HF and CAD in sinus rhythm to reduced risk of stroke. Only minority of patients in real world practice in Thailand could be considered eligible for the study. Nevertheless, OAC use in this setting has to be carefully consider and choose only in the right patient in order to benefit the patients.