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Original Investigation

Effectiveness and Safety of Standard- and Low-Dose Rivaroxaban in Asians With Atrial Fibrillation

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Abstract

Background

Low-dose rivaroxaban (10 mg/day) has been widely used in Asia for patients with atrial fibrillation (AF), although there is a lack of evidence regarding its effectiveness. In Asians, it is unclear whether low-dose rivaroxaban is equally effective as that of the standard dose or is associated with less bleeding risk.

Objectives

The aim of this study was to evaluate the effectiveness and safety of standard-dose (15 or 20 mg/day) and low-dose (10 mg/day) rivaroxaban in Asians with AF.

Methods

Using data files from the National Health Insurance Research Database between May 1, 2014, and September 30, 2015, a retrospective population-based cohort study was conducted in patients diagnosed with AF or atrial flutter and treated with low- or standard-dose rivaroxaban. Patients were followed up until the first occurrence of the study outcome or the end of the observation period (December 31, 2015).

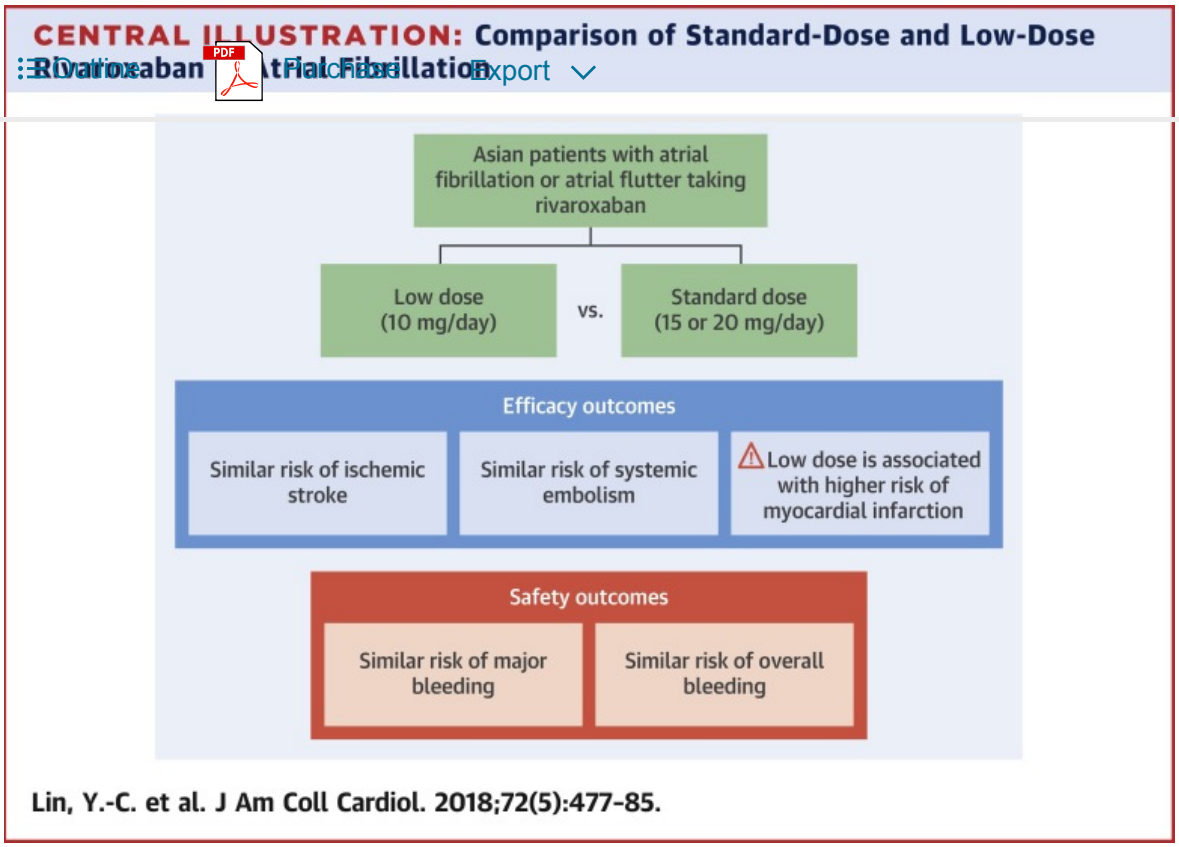
Results

Among 6,558 eligible patients, a total of 2,373 and 4,185 patients took low- and standard-dose rivaroxaban, respectively. Compared to standard-dose rivaroxaban, low-dose rivaroxaban was associated with a significantly higher risk of myocardial infarction (subdistribution hazard ratio: 2.26; 95% confidence interval: 1.13 to 4.52), with similar risk of ischemic stroke, systemic embolism, major bleeding, and nonmajor clinically relevant bleeding.

Conclusions

Compared to standard-dose rivaroxaban, low-dose rivaroxaban in Asian patients with AF was associated with similar risks of thromboembolism and bleeding except myocardial infarction.

Central Illustration



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Key Words

bleeding; embolism; myocardial infarction; non–vitamin K antagonist oral anticoagulant; stroke

Abbreviations and Acronyms

AF, atrial fibrillation; CI, confidence interval; MI, myocardial infarction; NHIRD, National Health Insurance Research Database; NOAC, non–vitamin K antagonist oral anticoagulant; SHR, subdistribution hazard ratio

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