Warfarin vs new oral anticoagulants (NOAC) for stroke prevention in atrial fibrillation : balance between benefit and adverse events

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AF is a major burden in Asia with a reported prevalence of 1 percent. By the year 2050, an estimated 49 million men and 23 million women in Asia will have AF. It is estimated that 2.9 million Asians will suffer from AF-associated stroke each year by 2050. With the projected increase in AF burden in Asia, stroke prevention in AF patients is highly important. While the CHADS2 score has been used to determine stroke risk and identify patients who need anticoagulation, the CHA2DS2-VASC (Congestive heart failure, Hypertension, Age 75 years, Diabetes mellitus, Stroke, Vascular disease, Age 65-74 years, Sex category) score is potentially better at describing both patients who need and do not need anticoagulation treatment. With a similar CHADS2 score, Asians have a higher risk of stroke than non-Asians when receiving oral anticoagulants. Asians also have a higher risk of bleeding than non-Asians. Under warfarin treatment, all bleeding events, including gastrointestinal (GI) bleeding, intracranial hemorrhage (ICH) and hemorrhagic stroke, were higher among RE-LY Asian patients than non-Asians.

NOACs are effective and safe alternatives to warfarin. In Asian RE-LY patients, dabigatran 150 mg bid showed superiority over warfarin in reducing rates of stroke and systemic embolism (1.39 vs 3.06 percent per year; hazard ratio [HR], 0.45). Dabigatran 110 mg bid also lowered the rate of stroke, but the difference between warfarin was not significant (HR, 0.81). The benefits from NOACs, especially dabigatran, appear to be supported when the number needed to treat (NNT) to prevent a stroke or systemic embolism, and the number needed to harm (NNH) to produce an ICH, are calculated.

Full analyses of the Asian data in 4 randomized trials of NOACs (RE-LY, ROCKET AF, ARISTOTLE, and ENGAGE AF) will be presented in this talk.