Updating of Risk Scoring System for Anticoagulant Therapy in Atrial Fibrillation: CHADS2, CHA2DS2-VASC etc

Lian-Yu Lin

National Taiwan University Hospital

Atrial fibrillation (AF) is a risk factor for ischemic stroke. Stroke-prevention strategies based on risk schemes have been developed to guide medical therapy. The CHADS₂ scoring method, derived from amalgamation of the Atrial Fibrillation Investigators' and Stroke Prevention in Atrial Fibrillation Investigators' schema has gained popularity because of its simplicity and endorsement in several widely promulgated practice guidelines. However, a recent large scale report showed that the 5 frequent used scoring systems including CHADS₂ have marginal performance in predicting thromboembolism in patients with AF. Although the CHADS₂ scoring system has been refined recently to CHA2DS2-VASC, the ability to predict thromboembolism events is still limited. Many epidemiology data have shown that stroke attributable to AF is more likely in whites than in nonwhites and Asians have higher rate of hemorrhagic stroke and lower rate of ischemic stroke than that in whites. A recent survey of from National Health Insurance database has shown that comparing with western people, hypertension plays a more important role in ischemic stroke in Taiwanese with AF and the incidence is lower. A substantial number of ischemic strokes can not be accurately predicted by current risk schemes. A more powerful one based on Asian populations is warranted.