中文題目：無論是否有心房顫動，CHA2DS2-VASc score 高低為獨立的住院急性腦中風病患預後指標

英文題目：CHA2DS2-VASc score as an Independent Outcome Predictor in Patients Hospitalized with Acute Ischemic Stroke with and without Atrial Fibrillation

作　　者：蘇峻弘[1] 羅健賢[1] 詹貴川[1] 蔡青峰[1]

服務單位：[1]中山醫學大學附設醫院內科部心臟內科

Background: Atrial fibrillation (AF) is a significant independent risk factor for 1-year mortality in patients with first acute ischemic stroke (AIS). The CHA2DS2-VASc (congestive heart failure, hypertension, age ≥75 years, diabetes mellitus, previous stroke, vascular disease, age 65–74 years, sex category) score was initially developed to assess the risk of stroke or systemic embolism in patients with AF. Recently, this scoring system has been demonstrated to have clinical value for predicting infarction severity and long-term clinical outcomes in AIS, but the evidence is insufficiently strong due to limited studies and single-center data. This large-scale prospective cohort study investigated the independent predictive value of the CHA2DS2-VASc scores and AF in such patients.

Methods: We included patients with AIS from the Taiwan Stroke Registry (TSR) during 2006–2016 as the present study population. Patients were divided into those with high (≥2) and low (<2) CHA2DS2-VASc scores. We further analyzed and classified patients according to the presence and absence of AF. The clinical endpoint was major adverse cardiac and cerebrovascular events (MACCEs), which was a composite of all-cause mortality, myocardial infarction, or re-stroke, at 1 year after the index AIS.

Results: A total of 62,227 patients with AIS were enrolled. The median age was 70.3 years, and 59% of the patients were women. After confounding factors were controlled, patients with high CHA2DS2-VASc scores had significantly higher incidence of 1-year MACCEs (adjusted hazard ratio [HR] = 1.63; 95% confidence interval [CI] = 1.52, 1.76), re-stroke (adjusted HR = 1.28; 95% CI = 1.16, 1.42), and all-cause mortality (adjusted HR = 2.03; 95% CI = 1.83, 2.24) than those with low CHA2DS2-VASc scores did. In the comparison between AF and non-AF groups, the AF group had increased MACCEs (adjusted HR = 1.74; 95% CI = 1.60, 1.89), myocardial infarction (adjusted HR = 4.86; 95% CI = 2.07, 11.4), re-stroke (adjusted HR = 1.47; 95% CI = 1.26, 1.71), and all-cause mortality (adjusted HR = 1.90; 95% CI = 1.72, 2.10). The Kaplan–Meier curve revealed that both CHA2DS2-VASc scores and AF were independent risk predictors for 1-year MACCEs and mortality. Further subanalysis of the individual risk factor of CHA2DS2-VASc scores revealed that almost all components except hypertension significantly increased MACCEs.

Conclusions: The CHA2DS2-VASc score and AF appeared to consistently predict 1-year MACCEs of AIS patients and provide more accurate risk stratification. Therefore, increased use of the CHA2DS2-VASc score may help improve the holistic clinical assessment of AIS patients with or without AF.