

中文題目：使用 CHA<sub>2</sub>DS<sub>2</sub>-VASc Score 預測類風濕性女性病人缺血性中風風險--  
以台灣健保資料庫

英文題目：CHA<sub>2</sub>DS<sub>2</sub>-VASc Score to Predict Risk of Ischemic Stroke among Female  
Rheumatoid Arthritis Patients without Atrial Fibrillation – population-based claims  
data

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### **Background:**

Rheumatoid arthritis (RA) possessed a higher risk of stroke compared with the general population or noninflammatory arthropathies, and the risk of long-term disability after stroke is also higher<sup>1,2,3</sup>. The aim of this study was to assess CHA<sub>2</sub>DS<sub>2</sub>-VASc score prediction of ischemic stroke risk among Taiwanese female RA patients without atrial fibrillation (AF).

### **Methods:**

The retrospective cohort study used claims data from the Longitudinal Health Insurance Database 2000, we identified ischemic stroke and comorbidities based on ICD-9-CM code. The CHADS<sub>2</sub> and CHA<sub>2</sub>DS<sub>2</sub>-VASc score was calculated according to the following algorithm with 4 and 8 variables that observation period was one year, respectively. The predictive ability of the CHADS<sub>2</sub> score and CHA<sub>2</sub>DS<sub>2</sub>-VASc score for ischemic stroke used receiver operating characteristic (ROC) curve to calculate. Using univariate and multiple Poisson regression models to assess the incidence rate ratios (IRRs) of outcomes.

### **Results:**

We identified 477 non-AF RA patients included in the study. The mean age was 52.91±14.01 year-old, and 34.8% had at least one comorbidities.

ROC curve analysis displayed CHADS<sub>2</sub> and CHA<sub>2</sub>DS<sub>2</sub>-VASc score were 0.53 (95% CI 0.42–0.64, p = 0.588) and 0.72 (95% CI 0.64–0.82, p < 0.001), respectively. The incidence rates of ischemic stroke were 18.36 and 145.11 per 10,000 person-years in patients with CHA<sub>2</sub>DS<sub>2</sub>-VASc score 0–1 and ≥ 2, respectively. Patients with CHA<sub>2</sub>DS<sub>2</sub>-VASc score ≥ 2 significantly higher to experience an ischemic stroke for a follow-up of 5 and 10 years (adjusted IRR=5.02, 95% CI 1.01–25.02, p < 0.049 and

adjusted IRR=8.84, 95% CI 2.99–26.16,  $p < 0.001$ , respectively).

**Conclusion:**

CHADS<sub>2</sub> score is insufficient to predict risk of ischemic stroke in patients with non-AF female RA. The CHA<sub>2</sub>DS<sub>2</sub>-VASc score was able to moderately predict the ischemic stroke risk in those patients especially in those with a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of  $\geq 2$ . Taiwanese female RA patients without AF possessed a significantly higher of ischemic stroke after follow up of five years.