**COMPARING R2CHADS2 AND CHA2DS2VASC SCORES IN STROKE PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION AND RENAL FAILURE**

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*Introduction*: Atrial fibrillation (AF) is the most common rhythm disorder in hospitalized patients. CHA2DS2-VASc and R2CHADS2 are the stroke risk assessment tool scores for patients with atrial fibrillation (2). Even though renal failure is independently associated with stroke (1), it has not been included in the CHADS2-VASc risk stratification system, which is used for anticoagulation recommendation in non-valvular AF patients as endorsed by ACC/AHA. Our study retrospectively compared R2CHADS2 to CHA2DS2-VASc scores in stroke patients with a past medical history of non-valvular AF to assess differences in predicting stroke in patients with renal failure.

*Methods*: 171 patients admitted over two years from one hospital with a diagnosis of atrial fibrillation and strokes were reviewed. Data variables included: age, medical record number, sex, race, renal function and any previously documented CHA2DS2-VASc scores. If the CHA2DS2-VASc and R2CHADS2 scores were not documented, they were calculated based on information within the medical record. GFR was calculated using the Chronic Kidney Disease Epidemiology Collaboration formula.

*Results*: The median CHA2DS2-VASc score was 6 (range 2-9) and the median R2CHA2DS2 score was 4 (range 2-8). The average GFR was 69.77 (range 6-108). A weak, but significant, correlation was found between renal function and CHA2DS2-VASc score (r = -0.263; p = 0.0005). A stronger and significant correlation was revealed between the R2CHADS2 and GFR (r = -0.70; p < 0.00001). CHA2DS2-VASc and R2CHADS2 scores also were significantly correlated (r = 0.627; p < 0.00001).

*Discussion*: The risk of stroke in patients with impaired renal function is high. Although CHA2DS2VASc and R2CHADS2 are significantly correlated to each other, using R2CHADS2 would be beneficial to assess stroke risk in patients with decreased renal function and non-valvular atrial fibrillation.