



IMAGING AND DIAGNOSTIC TESTING

TRANSESOPHAGEAL ECHOCARDIOGRAPHY CONFIRMS VALIDITY OF CHADS2 SCORE IN ATRIAL FLUTTER

ACC Poster Contributions

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Session Title: Echocardiography of the Left Atrium

Abstract Category: Echocardiography: 3-D, TEE, and Intracardiac Echo

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Background: Transesophageal echocardiography (TEE) is commonly performed prior to radiofrequency (RF) catheter ablation or direct current (DC) cardioversion of atrial flutter to look for left atrial (LA) thrombi and reduce embolic risk. The CHADS2 risk score is often used to risk stratify patients with atrial fibrillation but is less validated for atrial flutter. We hypothesized that a CHADS2 score > 2 would predict LA thrombus and embolic risk in atrial flutter patients.

Methods: Retrospective analysis was performed in 203 AFL patients who underwent pre-procedural TEE for evaluation of LA thrombi prior to RF catheter ablation or DC cardioversion between 9/02 and 9/09. Group 1 consisted of 99 patients with CHADS2 scores < 2. Group 2 was comprised of 104 patients with CHADS2 scores > 2.

Results: TEE revealed LA thrombus in 6.4% (13/203) of patients, most (3/4) were located in the LA appendage. LA thrombus was found in 2% (2/99) of group 1 patients and 10.6% (11/104) of patients in group 2 ($P = 0.02$). Spontaneous echocardiographic contrast (SEC) was found in 17% (17/99) of group 1 patients versus 32% (33/104) of patients in group 2 ($P = 0.02$). As expected, patients in the high CHADS 2 group were more likely to be therapeutically anticoagulated at the time of TEE (47.1% vs 30.1%; $P = 0.02$). There was an increased likelihood of concomitant atrial fibrillation in group 2 compared with group 1, however this difference did not reach statistical significance (44.2% vs 34.3%; $P = 0.15$).

Conclusions: Patients with atrial flutter and a CHADS2 score > 2 are significantly more likely to have both SEC and LA thrombi compared to those with CHADS2 scores < 2. This difference occurred despite significantly more therapeutic anticoagulation in the higher CHADS2 cohort. The results of this study suggest the CHADS2 risk score may be as useful in guiding atrial flutter anticoagulation choice as it is in atrial fibrillation. Prospective large scale studies may be helpful to confirm the clinical utility of the CHADS2 risk score in atrial flutter.