THE ROLE OF THE HEMORRHAGIC SCORE AS A PREDICTOR OF MAJOR BLEEDING FOLLOWING SURGICAL ABLATION FOR ATRIAL FIBRILLATION

ACC Poster Contributions
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Background: Post surgical ablation many patients are maintained on warfarin even when in sinus rhythm. In a previous prospective study we demonstrated that the CHADS2 score is limited in patients following surgical ablation. The purpose of this study was to investigate the role of the Hemorrhagic score, which incorporates age, gender and history of malignancy, in optimizing anticoagulation strategies post surgical ablation.

Methods: From 2005, 453 patients have undergone surgical ablation for atrial fibrillation at our center. Patients were scored with CHADS2 to assess thromboembolic risk and Hemorrhagic score to assess risk of major bleeding events, defined as requiring transfusion, hospitalization or intracranial hemorrhage. Data were collected on major bleeding events, type of anticoagulation, and rhythm status.

Results: Atleast one major bleeding event was seen in 25 patients. CHADS2 score of the event group was higher than in the non event group ($Z=1.97$, $p<0.05$). Hemorrhagic score of the event group was similar to the non event group ($Z=1.51$, $p=0.13$). At the time of their first bleed, 16 of 22 were on warfarin, 14 out of 22 were in sinus rhythm and 3 were unknown. Hemorrhagic score was positively correlated with CHADS2 score ($r=0.35$, $p<0.001$). Logistic regression analysis found that for every 1 point increase in Hemorrhagic score, there was 36% increased risk for a major bleed event ($OR=1.36$, CI=1.01-1.84, $p<0.05$). There was 33% increased risk for each 1 point increase in CHADS2, although this was not significant ($OR=1.33$, CI=0.97-1.84, $p=0.08$). When entered in the same model, neither score was an independent predictor of major bleeding event.

Conclusions: Patients following the Cox-Maze procedure are frequently on warfarin during the first year, even when in sinus rhythm. This population has a significant rate of bleeding events and very few thromboembolic episodes. The Hemorrhagic score can risk stratify those at highest risk for bleeding and aid in the decision for warfarin therapy. Ultimately, a hybrid scoring system with elements of the CHADS2 and Hemorrhagic score is necessary to predict those best served with warfarin therapy following surgical ablation when sinus rhythm is restored.