Arrhythmias

THROMBUS ON LEFT ATRIAL APPENDAGE OCCLUDER DEVICE: PERIPROCEDURAL CAUTION

Oral Contributions
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Introduction: Atrial fibrillation (AF) is associated with up to 20% of ischemic strokes with anticoagulation remains the cornerstone of treatment. The left atrial appendage (LAA) is the main source of thromboemboli. Recent studies demonstrated that mechanical closure of the LAA is an effective strategy to thromboprophylaxis. Long-term antiplatelet therapy is recommended to prevent thrombus formation post device insertion. We wish to determine the efficacy of an antiplatelet strategy in preventing thrombus formation, and the role for periprocedural anticoagulation.

Methods: Thirty-five patients (27 men, 8 women; mean age 74.5 ± 8.2 years) with nonvalvular AF, at high risk for cardioembolic stroke (mean CHA2DS2VASc score 3.6±1.8) and complications of oral anticoagulation, underwent percutaneous LAA closure using the WATCHMAN device with fluoroscopy and transoesophageal echocardiography (TOE) guidance. Follow-up included clinical and echocardiographic review within 45 days.

Results: The LAA was successfully occluded in 31 patients (97.1%). Four cases were abandoned due to unsuitable appendage anatomy. Post WATCHMAN insertion, 26 patients were commenced on warfarin therapy. Due to significant anticoagulation contraindications, five patients were commenced on dual antiplatelet therapy (DAPT) - aspirin 75mg and clopidogrel 75mg. The six-week follow up TOE demonstrated mobile thrombus on the atrial side of the device in four patients treated with DAPT. These patients were therefore commenced on full anticoagulation. Subsequent TOE demonstrated full resolution of the thrombus in all patients. In one patient, there was evidence of flow within the device indicating failure to endothelialize. No thrombus was demonstrated in the patients who received warfarin or dabigatran anticoagulation.

Conclusion: Our experience revealed that while LAA occlusion is a safe and successful procedure. However, the practice of DAPT alone before endothelialisation of the device, is insufficient in preventing device-related thrombus formation. We suggest that full anticoagulation should be undertaken for the first three months following implantation.