Patients Selection for Left Atrial Appendage Occlusion

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Atrial fibrillation (AF), whether paroxysmal, persistent, or permanent, and whether symptomatic or silent, significantly increases the risk of thromboembolic ischemic stroke. Nonvalvular AF increases the risk of stroke 5 times. Thromboembolism occurring with AF is associated with a greater risk of recurrent stroke, more severe disability, and mortality. Warfarin is the standard treatment for prevention of thrombo-embolism but the therapeutic range is very narrow from 2 to 3 of INR level. When the INR level exceeds 3, the rate of intracranial hemorrhage would be double. And when the INR level is less than 2, the rate of stroke would increase 70%.

Most strokes in patients with AF result from thrombus formation in the left atrial appendage (LAA). Occlusion of the LAA by means of a device could be an alternative to oral anticoagulation, mainly in patients who cannot tolerate this therapy because of a high bleeding risk.

Non-valvular AF patients who are high risk of thromboembolism and high bleeding risk, ex, recurrent bleeding on anticoagulation therapy, contraindication to anticoagulation therapy, and intolerant to anticoagulation therapy could be potential patients for LAA closure. Non-valvular AF patients who are high risk of thromboembolism but no effective anticoagulation, ex, prior stroke while on anticoagulation therapy, persistent non-compliance to anticoagulation therapy, and unwilling to take anticoagulation therapy could be potential patients for LAA closure.

Key words

Atrial fibrillation, Thromboembolism, Anticoagulation, Left atrial appendage