AF-RELATED STROKE SHOULD BE TREATED ONLY WITH NEW ANTICOAGULANTS - YES

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Atrial fibrillation is the commonest cardiac cause of stroke. Approximately 20% of patients with an acute stroke have atrial fibrillation (AF) as the underlying mechanism for the embolus. Recent studies have shown that many patients with so-called 'cryptogenic stroke', if investigated with prolonged cardiac rhythm monitoring, will show AF that was missed with 24 or 48 hours of cardiac monitoring. The decision to use anticoagulants in patients with atrial fibrillation is based on the presence of associated risk factors. The 'CHADS2 score' and CHA2DS2-VASc' score are often recommended as criterion to determine if the patient is being treated with anticoagulants, antiplatelets or no therapy. For patients who are candidates for anticoagulant therapy, warfarin has been the main drug used over the last several decades. A number of studies have shown the drug to be superior to a placebo, aspirin or the combination of aspirin and Plavix. The medication, however, requires monitoring to adjust doses, and can have problems maintaining therapeutic INRs when the patient is treated with medications that may interfere with hepatic metabolism of the drug. Similarly, changes in dietary intake, especially food rick in vitamin K may also adversely effect INR levels. Compliance to long term treatment has been in general very poor, with more than half the patients not taking medications within 3-6 months after initiation of therapy.

In the last five years, there have been several reports on the comparison of warfarin to new anticoagulants that work either as thrombin inhibitors (dabigatran) or factor X antagonists (rivaroxaban and apixaban). These studies have been done in a large number of patients with moderate to high risk for embolism in patients with underlying paroxysmal or chronic atrial fibrillation. All studies have looked at 'non-inferiority' of the newer agent when compared to warfarin. All studies have shown the newer drugs to be 'not inferior' to warfarin. Two of the studies have in fact shown that the use of dabigatran (150 mg twice daily) or apixaban (5 mg twice daily) is in fact superior to warfarin. Superiority has predominantly been driven by fewer intracranial hemorrhages. The higher doses of dabigatran have also shown significantly fewer ischemic strokes when compared to warfarin. The better safety profile, fixed doses of medications (thus requiring no routine blood tests) and the extensive studies in AF patients with low, moderate or high risk for stroke have made these attractive alternates to the use of warfarin. Guidelines in Europe, Canada and U.S. recently have recommended the use of the newer agents in preference to warfarin.

The only major limitation with the use of these new agents is the cost of the medication. When one factors in the visits to doctors' offices for INR monitoring, and the frequent use of laboratory tests with the well known 'poor compliance' to medications (thus increasing the risk of embolic stroke), one can make a strong point that the difference in price of the newer agents in comparing to warfarin can easily be justified considering the major limitations with warfarin use. The newer agents, especially dabigatran, should be used in caution in patients over the age of 75, especially those with renal disease.