The Case
A 76-year-old woman with history of diabetes mellitus, hypertension, peptic ulcer disease, and intermittent palpitations. She presents with an embolic looking occipital infarct. Her creatinine clearance is 30 ml/min, and her medications at stroke onset included statins, an oral hypoglycaemic, and an angiotensin-converting enzyme inhibitor. Work-up including MRA of the brain, neck, and aortic arch; TTE, ECG, and telemetry are unrevealing. She was placed on a 30-day cardiac monitor.

The Questions
1. Should the patient be started on an antiplatelet agent for secondary stroke prevention or oral anticoagulation for presumptive atrial fibrillation during this 30-day period?
2. If anticoagulation is recommended, should she be started on warfarin, dabigatran, or rivaroxaban?
3. If the 30-day cardiac event monitoring is unrevealing, should longer monitoring be considered?

The Controversy
SHOULD STROKE PATIENTS WITH SUSPECTED ATRIAL FIBRILLATION BE STARTED ON ANTICOAGULATION PENDING THE RESULTS OF LONG-TERM CARDIAC MONITORING?

Stroke Patients With Suspected Atrial Fibrillation Should Be Started on Anticoagulation Pending the Results of Long-Term Cardiac Monitoring

Hans-Christoph Diener, MD, PhD

The fact that the patient experienced intermittent palpitations, has an infarct on imaging suggesting an embolic pattern, and has no large vessel disease makes intermittent atrial fibrillation a likely cause of the occipital infarct. Therefore, the initiation of anticoagulation is recommended. Vitamin-K antagonists are clearly superior to aspirin in the secondary prevention of stroke as shown in the European Atrial Fibrillation (EAFT) trial, and the new anticoagulant apixaban is superior to aspirin in secondary stroke prevention with a similar bleeding risk as shown in a subgroup analysis of the Apixaban Versus Acetylsalicylic Acid to Prevent Stroke in Atrial Fibrillation Patients Who Have Failed or are Unsuitable for Vitamin K Antagonist Treatment (AVERROES) trial. In addition, aspirin is contraindicated in a patient with a history of peptic ulcer. An unknown factor is the timing of initiation of oral anticoagulation after an ischemic stroke. There are almost no data from prospective randomized trials addressing the safety of early initiation of warfarin after an acute stroke. Most stroke units start warfarin 3–5 days after a moderate stroke. The patient should be started on warfarin. A creatinine clearance of 30 ml/min is at the lower limit of kidney function, both in the Randomized Evaluation of Long-Term Anticoagulation Therapy (RE-LY) trial investigating dabigatran and the Rivaroxaban Once Daily Oral Direct Factor Xa Inhibition Compared With Vitamin K Antagonism for Prevention of Stroke and Embolism in Atrial Fibrillation (ROCKET-AF) trial. There is a considerable risk that the kidney function might deteriorate in the near future, leading to high plasma levels of both dabigatran and rivaroxaban at an increased risk of major bleeding complications. Warfarin is less dependent on kidney function and can be monitored by international normalized ratio measurements. The U.S. Food and Drug Administration approved 75 mg bid of dabigatran for patients with compromised renal function. This approval is, however, based on pharmacokinetic calculations and not on data from patients treated with this particular dose. Therefore, warfarin is a better choice. In addition, dabigatran would not be the first choice in a patient with a history of peptic ulcer because of the increased risk of gastrointestinal bleeds with the 150 mg bid dosing in elderly patients.

How long should we monitor the patient for paroxysmal atrial fibrillation? A 30-day monitoring should be sufficient...
to detect intermittent atrial fibrillation. Whether an extended long-term monitoring with an implantable device reveals a higher detection rate of atrial fibrillation is at present investigated in the randomised Cryptogenic Stroke and Underlying Atrial Fibrillation Trial (CRYSTAL-AF) study, which recently achieved its recruitment goal. If the 30-day cardiac event monitoring does not reveal atrial fibrillation, the patient should undergo gastroscopy. If a peptic ulcer is excluded, the patient should be switched to aspirin in combination with a proton pump inhibitor.

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