Subclinical atrial fibrillation: Diagnosis and therapeutic challenges

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While clinical atrial fibrillation (AF), is a well-known risk factor for stroke, the therapeutic implications for device detected subclinical atrial fibrillation (SCAF) remain unknown. A review of 950 patients with the implanted loop recorder revealed an incidence of SCAF (> 6 minutes in duration) ranging from 22-34% at 18 months follows up. Most episodes were asymptomatic and brief (<30 minutes). Several studies in patients with implanted pacemaker or ICD showed an incidence of SCAF between 20-50% at 12-18 months follow up. Patients with SCAF had an increase in rates of thrombo-embolic (TE) complications (HR 2-2.5), resulting in an absolute TE risk of 1.0–2.5%/year. The stroke risk was highest in patients with increased CHADS stroke risk score. A recent large trial showed increased stroke rates only in patients with SCAF > 24 hrs duration. In this trial only 25% of SCAF episodes were > 24 hours in duration. Furthermore, in several trials, only 10-20% had SCAF within 30 days prior to the TE event. The remainder had either no SCAF, SCAF > 30 days prior to, or SCAF only after the TE event. In patients with clinical AF, anticoagulation therapy has been shown to reduce the risk of stroke; the benefit/risk ratio is not clear for patients with SCAF. Two studies are currently underway (ARTESIA NCT01938248 – NOAH NCT02618577) randomizing patients with device detected SCAF (> 6 min) to anticoagulation therapy versus placebo or aspirin. At the present time, in light of unproven benefit, yet real bleeding risk, the use of anticoagulation therapy may best be limited to patients with SCAF > 24 hrs episode duration and increased CHADS/CHADSVAS score. Close monitoring for the development of prolonged AF episodes is warranted.

Biography

Peter Ott obtained his medical degree from the University of Heidelberg, Germany. After Internal Medicine residency (Tucson, Arizona), he pursued specialty training in cardiology (Denver, Colorado) and cardiac electrophysiology (Salt Lake City, Utah). Since 1999 he is a leading member of the cardiac electrophysiology section at the Sarver Heart Center, University of Arizona. He has published in numerous reputed, peer-reviewed journals.

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