Atrial Fibrillation First Detected during Admission for Ischemic Stroke: In-Hospital and 1 year Outcomes

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Introduction: About 15-20% of ischemic strokes are attributable to documented atrial fibrillation (AF). Additionally, up to 20% of patients not known to have AF before the stroke are diagnosed as AF on cardiac monitoring during or after the stroke. The exact incidence and the clinical impact of such AF detected after stroke (AFDAS) is not clear and is currently being investigated. The objective of our study was to find the incidence of AFDAS in hospitalized patients with ischemic stroke. We also wanted to see if AFDAS was associated with the same worse prognosis as in patients with previously diagnosed AF.

Methods: All patients admitted with first ischemic stroke during a span of 3 years were included in this study. Patients with previous history of ischemic stroke and those with documented AF were excluded. Cardiac rhythm was continuously monitored throughout the hospital stay and with 72hrs. Holter monitoring after discharge. All patients were evaluated for a) In-hospital outcomes and b) for recurrence of ischemic stroke/TIA, up to one year from the index event.

Result: Of 545 ischemic stroke patients admitted over 3 years, 114(20.9%) had documented AF (DAF group). Of the remaining 431, 78 patients (18.09%) were detected to have AF (AFDAS group) during cardiac monitoring, whereas 353 (81.9%) remained arrhythmia free (SR group). Four patients in the SR group (1.1%), 2 patients in DAF group (1.7%) and 1 patient in ASDAF (1.2%) died during the hospital stay (p = NS). The duration of hospital stay was not different among the groups. During the follow-up period of 1 year, recurrence of stroke occurred in 8 patients of SR group (2.2%), 3 patients of ASDAF group (3.8%, p = 0.43) and 16 patients of AF group (14%, p = 0.001 vs. SR group, p = 0.046 vs. AFDAS).

Conclusion: The lack of difference in 1-year ischemic stroke recurrence between AFDAS and SR but lower than the DAF group suggests that the underlying pathophysiology of AFDAS may differ from that of KAF. These findings may have important implications on anticoagulation strategy in such patients.