PREVALENCE OF NEW STROKE IN NON VALVULAR ATRIAL FIBRILLATION PATIENTS ON DOAC IN RURAL POPULATION ADMITTED TO ACUTE STROKE UNIT

Niamh Murtagh, Muataz Elnseri, Tom O’Malley
Mayo University Hospital, Castlebar, Ireland

Background: Direct oral anticoagulation (DOAC) treatment is estimated to reduce the risk of non-valvular Atrial fibrillation (Afib) related stroke by up to 70%.

Methods: To estimate the prevalence of ischaemic stroke in non-valvular Afib patients treated with DOAC. As part of a stroke register we prospectively recorded 244 stroke and TIA patients discharged over a 12 months period in MUH (2017). Of these 198 (81%) had ischaemic stroke. We recorded the DOAC usage in the population. We used Fishers and Students test for our statistical analysis.

Results: A total of 28/244 (11%) patients had developed a stroke on DOAC therapy. In patients with known Atrial fibrillation (71), 28 (39.4%) were prescribed a DOAC prior to admission, 21 females (75%) versus 7 males (25%) p = 0.005. Twenty-four (87.5%) were aged 75 years and older. Stroke occurrence increased from (35%) among adults younger 75 years to (64.2%) in persons aged 75 and older and there was a 10% mortality rate. Ischaemic stroke was identified in 17 out of 28 pre-existing Afib on DOAC (60.7%). This was attributed to DOAC failure in 23 (82.5%), inappropriate dosage in 1 (3.5%) and poor compliance in 4 (14%). One had an intracranial haemorrhagic stroke and 3 had TIA’s. The remainder diagnosis was unclear. The aetiology of the ischaemic stroke suggested more commonly carotid stenosis and small vessel disease as a potential cause for treatment failure.

Conclusion: In an elderly population we found a failure rate for DOAC therapy in 10% of cases admitted to a stroke unit. They were more likely to be female have good compliance and appropriate dosage. This population with potential treatment failure may reflect underlying disparate stroke pathology in our elderly population.