PW01-85 - **ATRIAL FIBRILLATION AND THE RISK FOR CONVERSION FROM MILD COGNITIVE IMPAIRMENT TO DEMENTIA IN SUBJECTS AGED OVER 65**

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Background: Mild cognitive impairment (MCI) may be considered a pre-dementia cognitive state. The turn fromMCI to dementia is not clearly understood.It appears to be determined by the vascular risk factors of each individual.

Purpose: To determine if atrial fibrillation (AF) is a risk factor for conversion from MCI to dementia in an elderly population subgroup with certifiedMCI (MMSEscore: 28-21).

Material and method: There were included 123 subjects with MCI, aged over 65. They were evaluated yearly for 2 years using the Mini Mental State Examination(MMSE), ECG, CT scan and medical history.

Results: The average age was 72.8+/4.3 yrs ,with a sex ration male to female 1.27:1. Of the123 subjects17.07% (n=21) had AF at admission. The average MMSE difference was 2.3 points between the two cohorts in favor for the non-AF subjects(n=102). At1year, theAF cohort increased to 28 subjects and at two years to 33. The MMSE scores remain lower in AF cohort with an average of 7.4 points on the scale ($p< 0.001$,CI95%) at 2 years. In the AF cohort 75.75% (n=25) of the subjects had certified dementia by the end of the study, while in non-AF group only 12.2% (n=12)conversed to dementia with a clear statistical difference between the two groups ($p< 0.001$, CI95%). When other vascular risk factors were considered the strongest correlations were associated with cerebral stroke ($p=0.002$, CI95%), hypertension ($p=0.012$, CI95%) and dyslipidemia ($p=0.023$, CI95%). The longest the time-span from the MCI onset positively correlated to MCI-dementia conversion in both cohorts ($p< 0.001$, CI95%).

Discussions: MCI is regarded as a precursor of dementia, but not all patients with MCIactually develop dementia. Alzheimer and vascular dementia share several pathogenic mechanisms and the involvement of vascular risk factors is determinant in the clinical course.

Conclusion: Atrial fibrillation may predict the conversion from MCI to dementia,but other vascular risk factors may concur to it.The time-span from MCI onset is an independent risk factor for conversion to dementia in MCI elderly subjects with a direct relation.

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