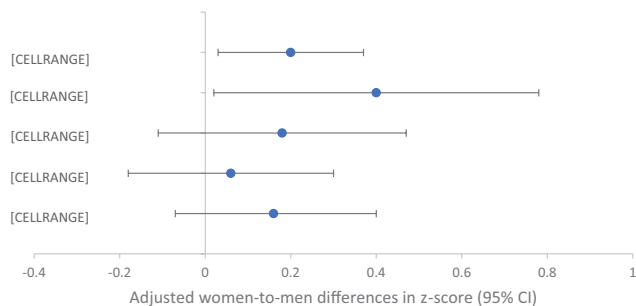*³Amsterdam UMC, Department of Cardiology, Amsterdam, Netherlands, ⁴Leiden University Medical Center, Department of Radiology, Leiden, Netherlands, ⁵Erasmus MC, Department of Radiology & Nuclear Medicine, Rotterdam, Netherlands, ⁶Amsterdam UMC, Alzheimer Center Amsterdam & Department of Neurology, Amsterdam, Netherlands, ⁷Maastricht University Medical Center, Department of Cardiology, Maastricht, Netherlands, ⁸University Medical Center Utrecht, Laboratory of Experimental Cardiology, Utrecht, Netherlands*

Background and aims: Cognitive impairment (CI) is common in patients with cerebro- and cardiovascular disease, including heart failure (HF). Characteristics of HF (e.g. ejection fraction [EF]) are known to differ between sexes. We aimed to investigate whether cognitive performance differs between women and men with HF, and secondly whether possible differences are modified by HF-characteristics or characteristics of vascular brain injury.

Methods: 162 patients (mean age 69.7 ± 10.0, 33% women) with HF from the Heart-Brain Study underwent a neuropsychological assessment and brain-MRI. Results were standardized into z-scores (using a reference group) for memory, language, attention/speed, executive functioning and global cognition (the average across the four domains). With linear models we calculated age and education adjusted women-to-men differences (W-MΔ) in cognitive performance. Additional adjustments were made by adding separate covariates of HF- and vascular brain injury-characteristics.

Results: Women performed better on global cognition than men (W-MΔ in z-score 0.20, 95%CI 0.03-0.37), predominantly on the memory domain (0.40, 0.02-0.78)(Figure). These differences were largely attributable to an ischaemic HF-etiology, as they disappeared after adjustment for this. After adjustment for non-lacunar infarcts the difference in global cognition remained similar but the difference in memory performance disappeared. Adjustments for NYHA-class, EF, white matter hyperintensities and microbleeds did not change the results.

Conclusions: Women and men with HF differ in cognitive performance, these differences are related to an ischaemic HF-etiology and non-lacunar infarcts, but not to EF. These differences may result in under-estimation of CI in women, when only the memory domain is tested.

Adjusted women-to-men differences in z-score (95% CI)

Disclosure of interest: No

2560

The association between inflammatory biomarkers with dementia after acute ischemic stroke

Kutlibika Abdurakhmonova*¹, Gulnora Rakhimbaeva¹
¹Tashkent Medical Academy, Neurology, Tashkent, Uzbekistan

Background and aims: The purpose of the study is to compare levels of inflammatory biomarkers such as neutrophil-to-lymphocyte (NLR), platelet-to-lymphocyte (PLR) and derived neutrophil-to-lymphocyte ratio (dNLR) in patients with post-stroke dementia (PSD) and without it and find the relationship between these markers and PSD.

Methods: 76 patients with acute ischemic stroke (AIS) were enrolled in this study and followed up during one month. The severity of stroke was assessed by the National Institutes of Health Stroke Scale (NIHSS) within 24h of admission. Hamilton Depression Scale (HDS) was used to evaluate depressive symptoms at a month after stroke. NLR, PLR and dNLR were calculated from the blood test at admission.

Results: 26 patients were diagnosed with PSD during one month period. Patients with PSD had higher NLR (2.41 vs 2.13, p=0.010), dNLR (1.72 vs 1.54, p=0.009), PLR (126.75 vs 112.3, p=0.015) compared to patients. The score of HDS in the patients with PSD was higher than patients without it after 1 month, 9 and 3 (p= 0.001) respectively. Values of dNLR (OR=1.833, 95% CI, p <0.05), PLR (OR= 1.828, 95% CI, p =0.05) and NLR (OR =1.732, 95% CI, p =0.05) were associated with occurance of PSD. The PSD group had a more severe stroke with NIHSS 3 and 2 (p<0.001), in turn.

Conclusions: Higher levels of dNLR, NLR and PLR were associated with an elevated prevalence of PSD and can use as prognostic marker to find early occurance of PSD.

Disclosure of interest: No

2626

PRESENCE OF COGNITIVE IMPAIRMENT AND FATIGUE IN TIA PATIENTS AND IN PATIENTS WITH LACUNAR STROKE. A PROPOSAL OF NEUROPSYCHOLOGYCAL ASSESSMENT PROTOCOL

Reyes López¹, Soledad Pérez Sánchez*², Andrés Franco Salinas², Antonio Bocero García², Joan Montaner², Ana María Najar Moyano²
¹Hospital Virgen Macarena, Neurology Unit, Seville, Spain, ²Hospital Virgen Macarena, Neurology Unit, Sevilla, Spain

Background and aims: Even though CVD is the second cause of CI (cognitive impairment), there are no standardized batteries for its systematic assessment. Our objective is to describe the obtained results of a new neuropsychological assessment protocol.

Methods: We select patients with TIA or lacunar stroke in the last year, exempt from significant disability after the stroke (mRS<3). Assessment protocol: MoCA, TMT, SDMT and FDT for cognitive functions; and D-FIS, BDI-II and WHOQOL-BREF for measuring fatigue, depressive symptomatology and quality of life.

Results: We complete the study in 39 TIA (average age: 68) and 37 lacunar stroke patients (average age: 66) out of a total of 102 patients (51 per group), illiteracy being the main reason for incomplete realization. MoCA detected CI in 59% and 57%, respectively. TIA patients with CI scored worse on short-term memory recall and phonemic fluency, and lacunar patients with CI, in short-term memory recall and task switching. A greater difficulty in task stwitching (FDT) and cognitive flexibility was found in lacunar patients in comparison to TIA, although both obtained a very low score for this domain. In the remaining, scores were below population mean for both groups. TIA patients showed higher fatigue level (p=0,0039), according to DFIS. Values for mood and quality of life were typical and without differences between groups.

Conclusions: This protocol shows more than a half of TIA and lacunar patients experience CI, being memory, task switching and cognitive flexibility the most affected domains. TIA patients exhibit a greater level of fatigue.

Disclosure of interest: No