Article: 778

Topic: 42 - Cognitive Neuroscience

## ASSOCIATION OF APATHY WITH FRONTAL LOBE DYSFUNCTION IN AMNESTIC MILD COGNITIVE IMPAIRMENT AND ALZHEIMER'S DISEASE

M. George<sup>1,2</sup>, T. Whitfield<sup>1</sup>, Z. Walker<sup>3</sup>

<sup>1</sup>Mental Health Unit, North Essex Partnership NHS Foundation Trust, Epping, <sup>2</sup>Department of Neuroscience, Kings College London, Institute of Psychiatry, <sup>3</sup>University College London and St. Margaret's Hospital, London, UK

**Objectives:** The primary aim of this study is to examine an association between apathy and frontal lobe dysfunction in patients with memory problems. We also aimed to look into the association between apathy severity and caregiver burden along with the relationship between apathy and praxis.

**Methods:** This was a retrospective cross sectional study. We selected 160 consecutive patients diagnosed with Alzheimer's dementia and Amnestic Mild Cognitive Impairment who had a comprehensive battery of neuropsychological tests and a behaviour rating scale of interest for this study recorded in the database. Correlation between apathy with and without depression were tested against frontal lobe test including Trail making A, Trial making B, Letter Fluency, Ideational Fluency, Category Fluency, Abstract Thinking and Executive functioning subtest of CAMGOG-R. Similarly correlation analysis was also done to look into association between apathy and caregiver burden as well as praxis.

**Results:** Statistically significant relationship were found between apathy and executive function scores, ideational fluency scores, abstract thinking and category fluency scores. Relationship between apathy and caregiver burden were highly significant. Further sub analysis, found apathy to be significantly associated with caregiver burden in both AD and aMCI patients.

**Conclusions:** Apathy is associated with frontal lobe dysfunction especially impaired executive function and ideational fluency even when controlled for depression. It is highly associated with caregiver burden both in AD & aMCI. Hence early recognition and management of apathy is important in improving the prognosis of patients with AD & aMCI as well as their caregiver.