

## **P16: Hippocampus Atrophy due to Treatment Resistant Depression in an Older Adult**

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**Introduction:** Recurrent major depressive disorder (MDD) has been associated with cognitive impairment and hippocampus atrophy. Additionally, in older adults it is related to increased dementia risk, as well as being dementia's prodromal syndrome.

**Case Report:** A 68-year-old female patient, with a history of MDD beginning in 2014, has been under the care of the Psychogeriatrics service at HC-UFMG. In 2015, she was 60-year-old and underwent her first MRI scan. At that time, the Medial Temporal Atrophy Score (MTA) was 2 and she had a treatment resistant depression (TRD). She began multimodal treatments, including ECT, achieving only partial remission. Since then, the patient had recurrences of depression without the remission of cognitive impairment. In 2021, her MTA Score was still 2 with TRD symptoms. Currently, she is on Venlafaxine 150mg, Mirtazapine 30mg, Lithium 300mg, Olanzapine 5mg, Clonazepam 0.25mg and maintenance ECT every 45 days. The patient remains with cognitive impairment that leads to disabilities but had not significantly progressed. On the other hand, the main impact in functionality is related to depressive symptoms, especially to the loss of interest and apathy.

**Discussion:** This case stands out due to the combination of hippocampal atrophy at a relatively young age and severe depression with cognitive impairment that has not progressed to dementia in 9 years. Severe depression can lead to significant cognitive deficits, as well as, hippocampus atrophy. While depression is related to hippocampus atrophy, it has not been related to TRD in a review study with Voxel-Based Morphometry. Conversely, Alzheimer's Disease is related to MTA  $\geq 2$  scores, as well as depressive symptoms. MTA 2 in a person of 60 years of age is not considered normal. When combined with cognitive impairment, these findings are generally related to neurodegeneration. Since both MTA and cognitive deficits were relatively stable, the hypothesis of a cognitive impairment and hippocampus atrophy due to depression were more likely.

**Conclusions:** MDD leads to cognitive impairment in older adults, as well as hippocampus atrophy. Nevertheless, depression and age are important risk factors for dementia and, therefore, a progression to dementia due to a neurodegenerative disease is still possible.

## **P17: Confirmatory Factor Analysis of the Cognitive Domains and Functional Assessment Questionnaire (CDFAQ)**

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**Background:** The Cognitive Domains and Functional Assessment Questionnaire (CDFAQ) assess cognitive and functional decline based on the DSM-5 criteria for Neurocognitive Disorders. Its accuracy has been assessed and was translated and validated into English. The informant version (CDFAQ-IV) is a 30-item questionnaire that assesses six cognitive domains with 5 items each: Complex Attention (CA), Executive Functions (EF), Learning and Memory (LM), Language (L), Perceptual-Motor (PM) and Social Cognition. The development of CDFAQ-IV was based on the DSM-5 cognitive domains, but its factor analysis has not been done yet.