

Depression in patients with Frontotemporal dementia subtypes

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Background: Descriptions of depression in Frontotemporal Dementia (FTD) variants are scarce and have not clearly distinguished depression from apathy, which is highly prevalent in FTD.

Methodology: To characterize depression and apathy in the main clinical subtypes of FTD through a retrospective cohort study. Depression and apathy as previously defined (DSM-5; Robert et al. 2009) were ascertained from clinical notes and scales. Brain atrophy patterns were rated by two blinded physicians (Harper et al.2016). Regional atrophy ratings were correlated with depression ratings.

Results: A total of 141 patients were included: n=82 with bvFTD, n=34 with svPPA and n=25 with nfvPPA. The prevalence of depression was similar in three groups at initial clinical assessment (~35%, $X^2=1.7$, $p=0.765$) and decreased after two years. Apathy was more common in bvFTD and svPPA versus nfvPPA ($X^2=26.0$, $p<0.001$) and increased in all groups after two years. The severity of depression, as measured with the GDS and BDI, was highest for svPPA ($t=4.4$, $p<0.001$). The severity of apathy, as measured with the FBI, was highest for bvFTD ($t=16.9$, $p<0.001$). GDS scores were positively correlated with brain atrophy in anterior-cingulate ($r=.607$, $p=0.028$), orbito-frontal ($r=.606$, $p=0.037$), anterior-temporal ($r=.736$, $p=0.004$) and fronto-insular regions ($r=.568$, $p=0.043$) solely on the left side.

Conclusions: The prevalence of symptoms of depression, beyond apathy, is significant in all three main variants of FTD. Severity ratings of depression were highest for patients with svPPA. Apathy prevalence and severity were highest for patients with bvFTD. Atrophy in left frontotemporal regions was correlated with depression symptoms.

Conflicts of interest

None