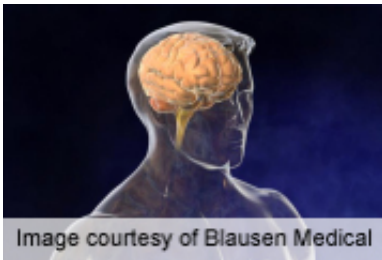


Five CSF markers differentiate dementia, parkinsonism

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Levels of five different cerebrospinal fluid biomarkers are able to improve differentiation between common dementia and parkinsonian disorders, according to a study published online Aug. 27 in the *Archives of Neurology*.

(HealthDay)—Levels of five different cerebrospinal fluid (CSF) biomarkers are able to improve differentiation between common dementia and parkinsonian disorders, according to a study published online Aug. 27 in the *Archives of Neurology*.

Sara Hall, M.D., from Lund University in Sweden, and colleagues assessed the ability of five CSF biomarkers to differentiate between 453 CSF samples from healthy controls and patients with Parkinson's disease (PD), PD with dementia (PDD), dementia with Lewy bodies (DLB), Alzheimer's disease (AD), progressive supranuclear palsy (PSP), multiple system atrophy (MSA), or corticobasal degeneration (CBD).

The researchers found that CSF levels of α -synuclein were increased in

patients with AD and decreased in patients with PD, PDD, DLB, and MSA. Decreased levels of β -amyloid 1-42 were seen in DLB. In AD, β -amyloid 1-42 levels were further decreased and CSF levels of total tau and hyperphosphorylated tau were increased. These biomarkers were able to distinguish AD from DLB and PDD with an area under the curve of 0.90, with the main contribution from α -synuclein and total tau. In atypical parkinsonian disorders (PSP, MSA, and CBD), CSF levels of neurofilament light chain were increased, and that level alone could be used to differentiate PD from atypical parkinsonian disorders with an area under the curve of 0.93.

"Together with earlier published data, our results indicate that these five CSF [biomarkers](#) might have clinical value in the differential diagnosis of [dementia](#) and/or parkinsonism," Hall and colleagues conclude.

More information: [Abstract](#)

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