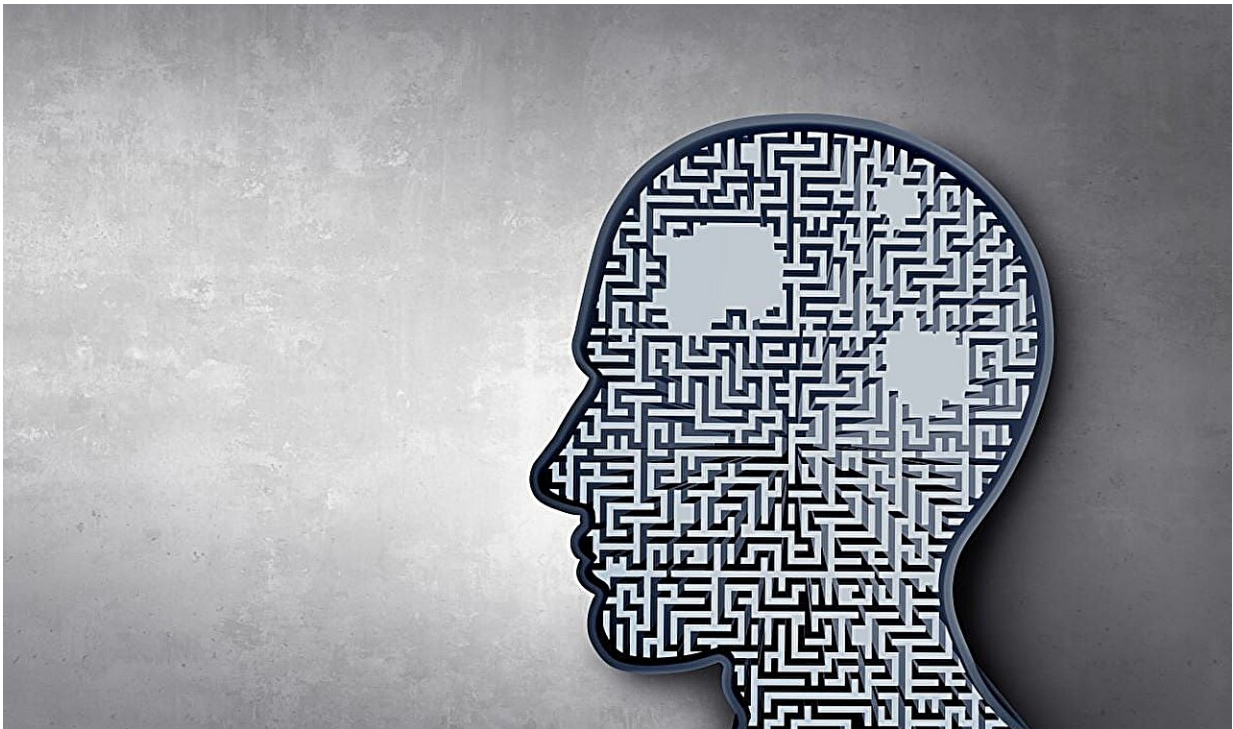


Emergence of psychosis in Alzheimer disease links to elevations in p-tau181

July 1 2024, by Elana Gotkine



For individuals with Alzheimer disease (AD), the emergence of psychosis is associated with elevations in levels of plasma tau phosphorylated at threonine 181 (p-tau181), according to a study [published](#) online June 26 in *JAMA Psychiatry*.

Jesus J. Gomar, Ph.D., and Jeremy Koppel, M.D., from the Feinstein Institutes for Medical Research in Manhasset, New York, examined the longitudinal dynamics of p-tau181 and neurofilament light chain protein (NfL) levels in association with the emergence of psychotic symptoms. Patients with [mild cognitive impairment](#) (MCI) and AD (with psychosis [AD+P] and without psychosis [AD–P]) and participants who were cognitively unimpaired (CU) were compared at baseline.

For the longitudinal analysis, participants with MCI and AD were categorized into those with evidence of psychosis at baseline and those who showed incidence of psychosis over the course of the study. The cohort included 752 participants with AD and 424 CU participants.

The researchers found that compared with patients who had psychosis at baseline (AD+P baseline), who had a decrease in plasma p-tau181 levels over time, those who showed incidence of psychosis over the course of follow-up (AD+P incident) had an increase in plasma p-tau181 levels.

In AD+P incident and AD+P baseline groups, and when only individuals with amyloid- β positivity were compared, the mean slope of p-tau181 change was significantly different. Increased levels of NfL were seen for patients who experienced psychosis at any time versus those who never experienced psychosis.

"The emergence of [psychosis](#) in AD was associated with elevations in [plasma](#) levels of p-tau181, indicating that p-tau181 may have value as a biomarker of neuropsychiatric illness in AD," the authors write.

Several authors disclosed ties to the [pharmaceutical industry](#).

More information: Jesus J. Gomar et al, Psychosis in Alzheimer Disease and Elevations in Disease-Relevant Biomarkers, *JAMA Psychiatry* (2024). [DOI: 10.1001/jamapsychiatry.2024.1389](https://doi.org/10.1001/jamapsychiatry.2024.1389)

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