A new type of degenerative brain disease, limbic-predominant age-related TDP-43 encephalopathy (LATE), was recognized just a decade
or so ago, and remains relatively unknown.

In the disease, the TDP-43 protein accumulates particularly in the limbic brain regions, which are also affected in the early stages of Alzheimer's disease. Accordingly, symptoms of LATE are similar to those of early Alzheimer's, but typically progress more slowly and are milder.

University of Helsinki researchers have conducted the first study exploring the prevalence of LATE in a population-based Finnish autopsy dataset encompassing 300 Finns over the age of 85.

LATE was found to be very common. Changes associated with the disease were identified in at least every second individual over the age of 85. The paper is published in the journal *Brain*.

"Most were also found to have other concurrent brain changes associated with degenerative brain diseases, usually Alzheimer's," says Associate Professor Liisa Myllykangas of the University of Helsinki.

The study revealed that LATE is strongly associated with dementia.

"The results suggest that LATE is, alongside Alzheimer's, one of the strongest determinants of dementia in the oldest old," says Myllykangas.

The association between LATE and dementia was independent of other brain changes found in the study subjects.

Previous studies have found LATE to be common, especially among those over the age of 80. Estimates suggest that almost 65,000 Finns over the age of 85 currently have dementia (in Finnish).

"LATE likely affects tens of thousands of people in Finland," notes Myllykangas.
With the share of very elderly individuals in the Finnish population (and around the world) expanding the most, Myllykangas believes the number of LATE patients will increase.

"This disorder is a significant concern for the public health system," she states.


Provided by University of Helsinki