

AMERICAN scientists are studying the activity of a protein linked with Alzheimer's disease.

According to researchers, the more rapid spread of this protein in the brains of women could explain why diagnoses of Alzheimer's occur more frequently in women than men.

Alzheimer's disease, which destroys nerve cells in the brain, affects more women than men. In the USA, almost two-thirds of Alzheimer's patients are women. The reasons for this difference are unclear.

American scientists have presented a new study at the Alzheimer's Association International Conference, which took place in July in Los Angeles.

The researchers centred their study on tau proteins, which spread from neuron to neuron and are linked to the destruction of cerebral tissues in Alzheimer's patients.

By studying images from brain scans, they retraced the pathways of tau proteins in the brains of 123 men and 178 women in good health and 101 men and 60 women suffering from mild cognitive impairment.

HOW TAU SPREADS

"It's kind of like reconstructing a crime scene after a crime. You weren't there when it happened, but you can determine where an intruder entered a house and what room they entered next. The graph analysis does something similar to show how tau spreads from one region to another," said Sepi Shokouhi, PhD, assistant professor of

Research on Alzheimer's looks at protein and apathy

Psychiatry and Behavioural Sciences and lead investigator for the study.

The study indicates that women may have more connections in the areas of the brain where tau proteins spread, which might accelerate their accumulation and increase the risk of developing Alzheimer's.

The researchers emphasised that further study is necessary to establish a theory of accelerated tau protein spread in the female brain.

"Sex-specific differences in the brain's pathological, neuroanatomical, and functional organisation may map into differences at a neurobehavioural and cognitive level, thus explaining differences in the prevalence of neurodegenerative disorders and helping us develop appropriate treatments," said Dr Shokouhi.

In a different study, British researchers have established a correlation with apathy and Alzheimer's disease, a distinct symptom that has historically been confused with depression.

Loss of memory is one of the symptoms most associated with Alzheimer's, which makes sense considering that the neurodegenerative disorder,

which gradually destroys neurons, first attacks the hippocampus, an area of the brain that plays a crucial role in the management of memories.

But Alzheimer's and other forms of dementia can also affect a patient's ability to feel and express emotions.

This loss of emotional capacity is known to the medical world as apathy, and, while common, apathy is hard to detect, as it is more subtle than other symptoms and often confused with depression.

However, the symptom presents "its own unique clinical and biological profile", as pointed out by a new study conducted at the University of Exeter (UK), and presented during the last Alzheimer's Association International Conference in Los Angeles.

The study analysed data from 4,320 Alzheimer's patients from 20 cohort studies, in order to "look at the prevalence of apathy over time".

DEVASTATING CONSEQUENCES

The study has demonstrated that almost half of the patients (45 per cent) were suffering from apathy and that the symptom has persisted



Alzheimer's, which destroys nerve cells in the brain, affects more women than men.

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through the years for over 20 per cent of them.

"Apathy is the forgotten symptom of dementia, yet it can have devastating consequences. Our research shows just how common apathy is in people with dementia, and we now need to understand it better so we can find effective new treatments," explained Professor Clive Ballard of the University of Exeter Medical School.

Data from other studies has suggested that 60 per cent Alzheimer's patients could suffer from apathy.

AFP Relaxnews