

Parkinson's linked to vitamin D

Scientists are testing whether vitamin D supplements can ease symptoms of Parkinson's disease. A US team found 55% of Parkinson's patients had insufficient levels of vitamin D, compared to 36% of healthy elderly people.

However, the Emory University researchers do not yet know if the vitamin deficiency is a cause or the result of having Parkinson's. The study appears in the journal Archives of Neurology.

Parkinson's disease affects nerve cells in several parts of the brain, particularly those that use the chemical messenger dopamine to control movement. The most common symptoms are tremor, stiffness and slowness of movement. These can be treated with oral replacement of dopamine.

Previous studies have shown that the part of the brain affected most by Parkinson's, the substantia nigra, has high levels of the vitamin D receptor, which suggests vitamin D may be important for normal functions of these cells.

Sunlight

Vitamin D is found in the diet, but is primarily formed in the skin by exposure to sunlight. However, the body's ability to produce the vitamin decreases with age, making older people more prone to deficiency. One theory is that people with Parkinson's may be particularly vulnerable because their condition limits the amount of time they spend out of doors.

However, scientists say it may also be possible that low vitamin D levels are in some way related to the genesis and origin of the disease. The researchers examined vitamin D levels in 100 people with Parkinson's, 100 with Alzheimer's disease and 100 who were healthy. The groups were matched for age, and economic circumstance.

Among the Parkinson's group 23% of patients had vitamin D levels so low that they could be described as deficient. In the Alzheimer's group the figure was 16%, and in the healthy group 10%. The researchers said the findings were striking because the study group came from the South West of the US, where sunny weather is the norm.

'Intriguing finding'

Researcher Dr Marian Evatt said: "We found that vitamin D insufficiency may have a unique association with Parkinson's, which is intriguing and warrants further investigation."

Dr Kieran Breen, director of research, Parkinson's Disease Society said: "Further research is required to determine at what stage the deficiency in vitamin levels occur in the brains of people with Parkinson's and whether the provision of a dietary supplement, or increased exposure to sunlight may help alleviate symptoms or have an effect on the rate of the condition's progression."

"This would help us answer the question as to whether the decrease in vitamin D levels in Parkinson's is a cause or effect of the condition."

Doctors have known for decades that vitamin D plays a role in bone formation.

More recently, scientists have been uncovering its effects elsewhere, including producing peptides that fight microbes in the skin, regulating blood pressure and insulin levels, and maintaining the nervous system.

Low vitamin D levels also appear to increase the risk of several cancers and auto-immune diseases such as multiple sclerosis and diabetes.

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