MedicalXpress

Vitamin D insufficiency high among patients with early Parkinson disease

March 14 2011

Patients with a recent onset of Parkinson disease have a high prevalence of vitamin D insufficiency, but vitamin D concentrations do not appear to decline during the progression of the disease, according to a report in the March issue of *Archives of Neurology,* one of the JAMA/Archives journals.

Vitamin D is now considered a hormone that regulates a number of physiological processes. "Vitamin D insufficiency has been associated with a variety of clinical disorders and chronic diseases, including impaired balance, decreased muscle strength, mood and cognitive dysfunction, autoimmune disorders such as multiple sclerosis and diabetes (types 1 and 2), and certain forms of cancer," the authors write as background information in the article. "Vitamin D insufficiency has been reported to be more common in patients with Parkinson disease (PD) than in healthy control subjects, but it is not clear whether having a chronic disease causing reduced mobility contributes to this relatively high prevalence."

Marian L. Evatt, M.D., M.S., of Emory University School of Medicine and the Atlanta Veterans Affairs Medical Center, and colleagues examined the prevalence of vitamin D insufficiency in untreated patients with early PD, diagnosed within five years of entry into the study. They conducted a survey study of vitamin D status in stored blood samples from patients with PD who were enrolled in the placebo group of the Deprenyl and Tocopherol Antioxidative Therapy of Parkinsonism (DATATOP) trial.

The authors found a high prevalence of vitamin D insufficiency and deficiency in 157 study participants with early, untreated PD. At the baseline visit, most study participants (69.4 percent) had vitamin D insufficiency and more than a quarter (26.1 percent) had vitamin D deficiency. "At the end point/final visit, these percentages fell to 51.6 percent and 7 percent, respectively."

"Contrary to our expectation that vitamin D levels might decrease over time because of disease-related inactivity and reduced sun exposure, vitamin D levels increased over the study period," the authors write. "These findings are consistent with the possibility that long-term insufficiency is present before the clinical manifestations of PD and may play a role in the pathogenesis of PD."

Vitamin D insufficiency in patients with early PD was similar or higher than the prevalence reported in previous studies.

"We confirm a high prevalence of vitamin D insufficiency in patients with recent onset of PD, during the early clinical stages in which patients do not require symptomatic therapy," the authors conclude. "Furthermore, vitamin D concentrations did not decrease but instead increased slightly over the course of follow-up. This provides evidence that during early PD, vitamin D concentrations do not decrease with disease progression."

More information: Arch Neurol, 2011;68[3]:314-319.

Provided by JAMA and Archives Journals

insufficiency-high-patients.html