Vitamin D3 Supplementation to Improve Fatigue in Patients with Advanced Cancer

Abstract # 9097

Background: Fatigue is a common and distressing symptom of patients with cancer. Vitamin D deficiency has also been associated with an increased risk of mortality in cancer patients. We conducted a prospective, randomized, double-blind randomized controlled study to determine the response to vitamin D supplementation and fatigue in the population of chemotherapy patients.

Methods: Eligibility criteria included the occurrence of 3 months of vitamin D deficiency (vitamin D levels < 12 ng/mL) as assessed by full blood profile, vitamin D levels, and bone mass index. Patients (n = 40) were randomized to receive 100,000 IU of vitamin D3 weekly for 12 weeks or a placebo. The primary outcome measure was the change in fatigue, measured by the Functional Assessment of Cancer Therapy Fatigue (FACT-F) scale. Secondary outcomes included changes in pain, nausea, and other symptoms.

Results: A total of 36 patients completed the study. The mean age of the participants was 62 years, and 23 were women. The median vitamin D level was 5 ng/mL in the treatment group and 4.5 ng/mL in the control group. The mean change in FACT-F scores was 4.5 in the treatment group and 0.5 in the control group. The treatment group also showed a significant decrease in fatigue, measured by the Mini-Mental State Examination (MMSE). The mean MMSE score was 26.5 in the treatment group and 22.5 in the control group.

Conclusions: Vitamin D supplementation resulted in a significant decrease in fatigue scores and was associated with an improvement in quality of life. The study results suggest that vitamin D supplementation may be a potential treatment for fatigue in patients with advanced cancer.