Low Vitamin D Levels in Alpine HIV Study

November 16, 2009

A new study adds to the evidence that vitamin D deficiency is common in people living with HIV. The new data, from an Italian study reported last week at the 12th European AIDS Conference in Cologne, Germany, and summarized by the National AIDS Treatment Advocacy Project (NATAP), underscore the potential importance of testing for and treating low vitamin D levels to thwart the increased risk of bone deterioration and immune system dysfunction in those infected with the virus.

Circulating 25-hydroxyvitamin [25(OH)D] levels in the blood are considered the best indicator of vitamin D status. Oswald Moling, MD, and his colleagues repeatedly measured 25(OH)D in 102 people living with HIV in the winter and spring receiving care at the Ospedale Generale in Bolzano—an Alpine area of northern Italy where exposure to sunlight is reduced in winter and, as a result, vitamin D levels diminish.

According to NATAP's report, only 18 of these 102 people (18 percent) had vitamin D quotients matching the recommended level of at least 30 ng/mL (75 nmol/L). Thirty-five percent had levels below 10 ng/mL (25 nmol/L). These findings were notable in that 18 people living with HIV also had low phosphorous levels—a vital nutrient to bone health that is poorly absorbed by the body if vitamin D levels are insufficient.

People with low vitamin D in the study took vitamin D supplements—1,400 to 2,000 IU of 25(OH)D daily or 10,000 to 14,000 IU once weekly. Unfortunately, only 48 percent with a first vitamin D reading below 30 ng/mL regained a normal level through supplementation.

The investigators, NATAP writes, believe research is showing that vitamin D is "not only a predictor of bone health but is also an independent predictor of risk reduction for infection, autoimmune, cardiovascular and psychiatric diseases, and cancer."