Frailty Is Tied to Reduced Bone Density in Middle-Aged People With HIV

A study of 175 HIV-positive French individuals finds.

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Middle-aged people living with HIV are more likely to experience frailty if they have reduced bone mineral density (BMD), aidsmap reports.

Publishing their findings in the journal AIDS, French researchers conducted a cross-sectional observational study of 175 people receiving HIV care between 2010 and 2016 who had their BMD tested with a method known as densitometry.

Sixty-nine percent of the participants were male. The median age was 56 among the men and 53 among the women.

The researchers looked at various indicators of frailty, including weight loss, exhaustion, physical activity, walking speed, grip strength and problems standing from a sitting position. According to the Cardiovascular Health Study (CHS) criteria, an individual is frail if he or she has at least three such markers, while prefrailty is defined as the presence of one or two markers. According to the Study of Osteoporotic Fractures (SOF), frailty is defined as the presence of at least two markers and prefrailty is defined as having one marker.

The vast majority of participants had taken HIV treatment that is associated with bone loss. Seventy-nine percent had a history of taking Viread (tenofovir disoproxil fumarate, or TDF) while 88 percent had a history of taking a protease inhibitor.

According to the CHS criteria, 8 percent of the participants were frail and 63 percent prefrail. According to the SOF criteria, 10 percent were frail and 37 percent were prefrail.

Twenty-two percent of the participants had osteopenia (a precursor to osteoporosis), and 10 percent had osteoporosis in the spine. The prevalence of the two bone loss conditions at the femur neck was a respective 34 percent and 6 percent. Compared with men, the women had significantly lower BMD and T-scores (a T-score is an individual's BMD compared with what is expected for his or her age and sex) in the spine and femur.

The researchers identified a significant link between frailty according to the SOF criteria and the

spine’s BMD and T-score among women.

After adjusting the data for age, smoking, length of HIV infection, lowest-ever CD4 count and the use of Viread and protease inhibitors, the researchers found that having osteoporosis of the femur was associated with a 29-fold greater likelihood of being frail among men according to the SOF criteria.

To read the study abstract, click here.

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