Lower Bone Mass in HIV-Positive Postmenopausal Women

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Black and Hispanic HIV-positive women who've been through menopause might be at higher risk of bone fractures than similar HIV-negative women, according to a study published online December 4 in the *Journal of Clinical Endocrinology and Metabolism* and reported by aidsmap.

As bone density decreases with age, people are at increased risk of bone fractures. Fractures, especially of the hip, can leave people frail and immobile. Since people with HIV are living longer because of the effectiveness of combination antiretroviral (ARV) therapy, diseases associated with aging—such as low bone mineral density (BMD)—are an increasing concern.

Studies show that, in general, bone density tends to decrease during the first two years of HIV treatment but then levels off. Of particular concern, however, is evidence suggesting greater BMD loss in HIV-positive men and women compared with those not living with the virus. Most studies, however, have focused on younger white people with HIV.

Michael Yin, MD, from Columbia University Medical Center in New York City, and his colleagues set out to explore a possible connection between HIV and more pronounced BMD loss in black and Hispanic postmenopausal women. Yin's group compared the results of bone tests— including dual-energy X-ray absorptiometry (DEXA) scans of the spine and hip and tests of blood proteins associated with higher bone turnover—conducted on 92 HIV-positive and 95 HIV-negative women.

HIV-positive women, at an average age of 56, were younger and had a lower body mass index—an indicator of body fat based on weight and height—than their HIV-negative counterparts. Most of the HIV-positive women were taking ARV therapy.

HIV status turned out to be highly associated with loss of bone density. Women living with HIV were significantly more likely than HIV-negative women to have BMD levels below what is considered average for their age and body size. This was true in the spine and hip. Moreover, after adjusting the data for race, body mass index and alcohol consumption, researchers found that HIV was an independent risk factor for bone density loss.

Yin and his colleagues attribute the difference in BMD between HIV-positive and HIV-negative women to the fact that HIV-positive women had higher turnover of bone cells and higher levels of proteins associated with inflammation.

Lower BMD, said the authors, could place HIV-positive postmenopausal women at higher risk for bone fractures.

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http://beta.docker.poz.com/article/hiv-menopause-bone-17882-1451