VA Study: Age-Related Declines in Physical Function Slightly More Common in HIV

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Editor's note: In response to concerns about the accuracy of this report, we have edited its contents to better reflect the findings published in AIDS Patient Care and STDs (January 14, 2011).

Age-related health problems negatively affects physical functioning among HIV-positive people and may exacerbate the effects of aging in this population, according to a new Veterans Administration (VA) study published in the January issue of AIDS Patient Care and STDs. In fact, compared with age-matched HIV-negative veterans, physical function was found to be slightly worse among HIV-positive veterans over the age of 50.

Researchers have found in recent years that a number of age-related diseases appear to be occurring in HIV-positive people at a younger age than their HIV-negative counterparts. There is disagreement, however, about whether these conditions—including cardiovascular disease (CVD), bone mineral loss, pulmonary diseases and certain cancers—are signs of accelerated aging or other factors associated with HIV infection.

Nevertheless, scientists are eager to better understand the phenomenon of aging-related diseases in HIV and to determine the best ways to care for an aging HIV population. The majority of people with HIV are expected to be older than 50 by the year 2015.

One area of interest is physical functioning. Physical functioning comprises a number of aspects of a person's physical ability to carry out tasks, ranging from daily chores to strenuous exercise. In HIV-negative people and people with AIDS, defects in physical function have been associated with greater risks of illness and death. Few studies, however, have tried to assess whether reduced physical function is also common—and occurs more frequently—in people with HIV on antiretroviral therapy and relatively healthy immune systems, compared with HIV-negative individuals.

To explore this area, Krisann Oursler, MD, ScM, from the University of Maryland School of Medicine and the Veterans Affairs (VA) Maryland Healthcare System in Baltimore, and her colleagues from other centers around the United States, compared data on 3,227 HIV-positive and 3,240 HIV-negative military veterans. Most of the study participants were male and nearly half of whom were

50 years of age or older.

The two groups differed in certain key respects. HIV-positive participants were less likely to report regular exercise, tended to be more underweight, to have a history of injection drug use and to be more likely to have hepatitis C. The HIV-negative participants were significantly more likely to have cardiovascular disease (CVD) and diabetes.

Across the board, HIV-positive veterans were no more likely to have worse physical functioning than HIV-negative veterans in the study. However, when the researchers adjusted the data for demographics and clinical factors—such as age and the presence of age-related diseases—“physical function was significantly lower in HIV-infected patients compared to uninfected patients, but the effect was very modest.”

In both the 50-to-54 and 55-and-older age groups physical function was worse in the HIV-infected study volunteers, the authors report. "These results," they add, "are supported by [other data involving] exercise performance testing that showed significantly lower aerobic capacity among older HIV-infected patients compared to age-matched uninfected adults."

The study authors noted that HIV-positive veterans in the youngest age group—44 and under—reported higher functioning than uninfected patients. Only this age group of HIV-infected patients had similar frequency of exercise compared to the uninfected patients, suggesting that physical inactivity may be associated with worse physical function among older HIV-infected patients.

In addition to it being nearly twice as common in HIV-negative volunteers, diabetes was much less likely to affect functioning in people living with HIV. According to the authors, “This differential effect of diabetes on function by HIV status was statistically significant, and reflected the finding that a 50-year-old diabetic HIV-infected subject had the equivalent level of function as a 36-year-old diabetic uninfected subject."

CVD, which was also more common among HIV-negative veterans, was no more likely associated with reduced physical function among HIV-positive study volunteers. Still, the authors note, “Given that HIV-infected patients may have increased risk of coronary heart disease and cardiac dysfunction, CVD will likely become a significant source of physical disability in HIV-infected patients who are otherwise stable on cART, and thus provides additional incentive to reduce cardiac risk factors.”

The one disease wherein people with HIV were more likely to have reduced physical function compared with HIV-negative participants was chronic lung disease, which was equally common among both groups of patients. HIV-positive sufferers of this condition, which includes emphysema, were more likely to have reduced physical function than HIV-negative sufferers: "[A] a 50-year old HIV-infected subject had the equivalent level of function as a 68.1-year old uninfected subject."

The authors note that they did not have the ability to explore levels of physical functioning as they related to the severity of specific diseases—such as CVD or diabetes—over time. They also state that further research will be needed to confirm their findings.

Nevertheless, Oursler and her colleagues suggests that these findings demonstrate that age-related health issues should be considered important risks factor for poor physical function in this clinical setting. “The study supports further integration of primary health care and prevention into HIV care with increased focus on age-associated comorbidity,” they conclude.

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