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The full report is titled “High Prevalence of Osteonecrosis of the Femoral Head in HIV-Infected Adults.” It is in the 2 July 2002 issue of *Annals of Internal Medicine* (volume 137, pages 17-24). The authors are KD Miller, H Masur, EC Jones, GO Joe, ME Rick, GG Kelly, JM Mican, S Liu, LH Gerber, WC Blackwelder, J Falloon, RT Davey Jr., MA Polis, RE Walker, HC Lane, and JA Kovacs.

Problems of the Hip Bone in Patients with HIV Infection

What is the problem and what is known about it so far?

HIV is the virus that causes AIDS. Since the mid 1990s, several powerful therapies (combinations of antiretroviral drugs) have helped increase length of life in many people with HIV infection. The focus of care for patients with HIV infection has shifted to managing long-term complications and complex drug regimens and their side effects.

Recently, doctors have noted that some patients with HIV infection have a problem with the bone in their hip, in which part of the bone dies (osteonecrosis of the hip). The condition can become painful and disabling. In some instances, surgery for a total hip replacement is needed. Osteonecrosis of the hip doesn't occur very often in adults with normal immune systems. Its frequency in people with HIV infection is not known.

Why did the researchers do this particular study?

To see whether osteonecrosis of the hip occurs frequently in people with HIV infection.

Who was studied?

339 adults with HIV infection and 118 adults without HIV infection. None of the participants had hip pain or hip symptoms.

How was the study done?

Patients with HIV infection who were enrolled in special studies at the National Institutes of Health (NIH) were invited to have a magnetic resonance imaging (MRI) scan of the hip bone. This is a scan that uses radio waves and a magnetic field to produce detailed pictures of the bone. The researchers also invited “normal volunteers” without HIV infection or other conditions to have the scan. Radiologists who did not know whether the scans were from a person with HIV infection interpreted the scan results.

What did the researchers find?

Fifteen (4.4%) of the adults with HIV infection had osteonecrosis of the hip detected by MRI scan. Osteonecrosis was more frequent among the HIV-infected persons who had used steroids, lipid-lowering drugs, or testosterone and among those who routinely did bodybuilding exercises. None of the adults without HIV infection were found to have osteonecrosis.

What were the limitations of the study?

The adults in this study had no symptoms. We do not know whether the osteonecrosis that was detected by MRI scans would have eventually caused hip pain or other problems. Also, we cannot tell whether the osteonecrosis was caused by something specific to HIV infection or by some of the drugs taken and intense bodybuilding exercises performed by some of the study participants who had HIV infection.

What are the implications of the study?

Asymptomatic patients with HIV infection have an unexpectedly high occurrence of osteonecrosis of the hip detected by MRI scan. Although this study did not involve patients with hip pain, osteonecrosis should probably be considered in HIV-infected persons who begin to have pain and problems with their hips.

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