Combo HIV Treatment Protects Against Heart Damage Among Children

However, this advantage over children not treated with effective combination ARV treatment appears to diminish over time.

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Providing effective combination antiretroviral (ARV) treatment to children who contracted HIV from their mothers appears to protect against damage to the heart, MedPage Today reports. However, in a recent study, the difference between children who received effective combination ARV regimens and those who did not narrowed over time.

Publishing their findings in the Journal of the American College of Cardiology, researchers from the CHAART-2 study examined 148 echocardiograms from 74 children exposed to effective combination ARV treatment and compared these results to 860 echocardiograms from 140 children who were not exposed to effective combination ARV treatment and who participated in the P2C2HIV study. All the children contracted the virus from their mothers.

The children in the CHAART-2 study were all exposed to combination ARV treatment, meaning regimens including more than one ARV at a time, and 91 percent were treated with what was once known as highly active antiretroviral therapy (HAART). The HAART era began in 1996 with the advent of protease inhibitors and the practice of treating the virus with three or more ARVs—a treatment protocol that finally succeeded in reliably fully suppressing HIV and providing a substantial survival benefit. Ninety-one percent of the children from the P2C2HIV study were exposed to treatment with Retrovir (zidovudine, or AZT) on its own, known as monotherapy.

Exposure to HAART was associated with what are known as lower left ventricular mass and lower end-diastolic septal thickness. Both associations suggest that HAART may protect the heart. The length of exposure to HAART was not associated with such benefits.

Two additional identified heart-related benefits were the fact that left ventricular fractional shortening and left ventricular contractility were consistently higher among the HAART-exposed children compared with those not exposed to the therapy. Nevertheless, when the HAART-exposed children reached age 11, their average left ventricular contractility was similar to that seen among the HAART-unexposed children at the beginning of their own participation in the P2C2HIV study.

This finding that the HAART-associated benefits to the heart may decline over time led the

researchers to speculate that HAART may delay what is known as HIV-associated cardiomyopathy among children but not actually prevent such a negative health outcome to the heart.

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