HIV Meds Not Tied to Worse Neurodevelopment in HIV-Negative Infants

Researchers compared outcomes between babies born to HIV-positive mothers exposed to antiretrovirals and those who were not.

July 12, 2019 By Benjamin Ryan

HIV-negative infants born to HIV-positive mothers do not differ in their neurocognitive development through five years of age based on whether they were exposed to antiretrovirals (ARVs), whether in the womb, through breast feeding or through prophylactic treatment after birth, aidsmap reports.

Publishing their findings in The Lancet HIV, Michael Boivin, PhD, of Michigan State University, and colleagues enrolled 861 infants who did not contract the virus from their HIV-positive mothers and who were recruited in Malawi and Uganda.

The babies were screened at 12, 24, 48 and 60 months old. At the first three visits, they were given the Mullen Scales of Early Learning (MSEL) test, which assesses neurocognitive development over time. At the 48- and 60-month visits, they were given the Kaufman Assessment Battery for Children (KABC-II), which assesses neuropsychological cognitive abilities.

Through their participation in the PROMISE-BF trial, the infants' mothers had been randomly assigned to receive one of two regimens. The first was triple ARV treatment during pregnancy with Kaletra (lopinavir/ritonavir) plus either lamivudine (3TC) or Truvada (tenofovir disoproxil fumarate/emtricitabine). The second regimen was zidovudine (Retrovir, or AZT), meant not for comprehensive treatment of the virus but to prevent transmission to the infant, also known as prophylaxis.

After giving birth, the mothers were further randomized to receive triple ARV treatment or for their infants to receive Viramune (nevirapine) prophylaxis during the breast-feeding period.

The neurodevelopment study matched the children who were and were not exposed to ARVs according to their age, sex and socioeconomic background.

The study saw no differences in MSEL scores at the 12- and 24-month visits based on the

children’s ARV exposure. At the 48-month mark, the scores among the children whose mothers did not take triple ARV treatment before or after giving birth were poorer compared with those born to mothers who took triple treatment during both these periods.

The children’s KABC-II scores were comparable at 48 and 60 months of age regardless of exposure to ARVs.

The study authors theorized that “antepartum triple antiretroviral protection of the health of mothers with HIV during pregnancy might be neuroprotective for the child, and when continued postpartum, could enhance the quality of caregiving for the child through better clinical care for the mother."

To read the aidsmap article, click here.

To read the study abstract, click here.

To read a commentary about the study, click here.

© 2026 Smart + Strong All Rights Reserved.

http://beta.docker.poz.com/article/hiv-meds-tied-worse-neurodevelopment-hivnegative-infants