HIV Medications Vary Widely in Their Ties to Negative Birth Outcomes

A review of recent studies found that some antiretrovirals were associated with preterm birth and low birth weight.

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Pregnant women living with HIV in lower-income nations who take protease inhibitor– or non-nucleoside reverse transcriptase inhibitor (NNRTI)–based antiretroviral (ARV) regimens may be at higher risk of delivering a baby preterm or with low birth weight, aidsmap reports. Taking particular nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs) may also be associated with an increased risk of such outcomes.

Publishing their findings in the Journal of Acquired Immune Deficiency Syndromes, researchers conducted a systematic review of 13 research papers published during the previous five years that reported data on low birth weight and preterm birth among women who took ARVs during pregnancy.

The findings were mixed. Taking a protease inhibitor–based regimen of Kaletra (lopinavir/ritonavir) plus Combivir (zidovudine/lamivudine) was associated with a higher risk of preterm birth compared with taking Retrovir (zidovudine, or AZT) on its own (known as monotherapy) or an NRTI-based triple-ARV regimen including Ziagen (abacavir). Comparing a protease inhibitor–based regimen with a Sustiva (efavirenz)-based regimen, the researchers saw no difference in the risk of preterm birth. In fact, Sustiva-based regimens were not associated with preterm birth at all.

Compared with Retrovir monotherapy, combination ARV regimens—whether or not they were based on protease inhibitors—were associated with a higher risk of low birth weight. The available data did not indicate that any particular HIV medication or NRTI backbone was consistently tied to this negative birth outcome.

Protease inhibitor– and NNRTI-based regimens' association with negative birth outcomes or their link with a protective effect against such outcomes, varied according to the NRTIs with which they were prescribed.

The study authors concluded: “Although challenging, optimization of [ARV] regimens could simultaneously promote maternal health, prevent [mother-to-child transmission of HIV] and also minimize risks of preterm birth and low birth weight.”

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