

Abstract

BACKGROUND:

We assessed whether 7 days of zidovudine + lamivudine postpartum with single-dose nevirapine at labor decreases nevirapine resistance in HIV-infected women in Malawi.

METHODS:

HIV-infected pregnant women receiving intrapartum single-dose nevirapine and 7 days of zidovudine + lamivudine (n = 132) and women receiving intrapartum single-dose nevirapine alone (n = 66) were followed from an antenatal visit through 6 weeks postpartum. Plasma specimens at 2 and 6 weeks postpartum were tested for genotypic resistance to nevirapine by population sequencing and sensitive real-time polymerase chain reaction. Poisson regression was used to determine predictors of postpartum nevirapine resistance.

RESULTS:

Median HIV RNA was similar at entry (4.27 log vs. 4.35 log, $P = 0.87$), differed at 2 weeks postpartum (2.67 log vs. 3.58 log, $P < 0.0001$) but not at 6 weeks postpartum (4.49 log vs. 4.40 log, $P = 0.79$), between single-dose nevirapine/zidovudine + lamivudine and single-dose nevirapine groups, respectively. Nevirapine resistance, measured by population sequencing and sensitive real-time polymerase chain reaction, was significantly less common in those receiving single-dose nevirapine/zidovudine + lamivudine compared with single-dose nevirapine, respectively, at 2 weeks [10% (4 of 40) vs. 74% (31 of 42), $P < 0.0001$] and 6 weeks postpartum [10% (11 of 115) vs. 64% (41 of 64), $P < 0.0001$; adjusted relative risk = 0.18, 95% confidence interval (0.10 to 0.34)].

CONCLUSIONS:

The significant decrease in nevirapine resistance conferred by 1 week of zidovudine + lamivudine should help policymakers optimize peripartum HIV prophylaxis recommendations.