

Abstract

Persistent genital human immunodeficiency virus type 1 (HIV-1) shedding among women receiving antiretroviral therapy (ART) may present a transmission risk. We investigated the associations between genital HIV-1 suppression after ART initiation and adherence, resistance, pretreatment CD4 cell count, and hormonal contraceptive use. First-line ART was initiated in 102 women. Plasma and genital HIV-1 RNA levels were measured at months 0, 3, and 6. Adherence was a strong and consistent predictor of genital HIV-1 suppression ($P < .001$), whereas genotypic resistance was associated with higher vaginal HIV-1 RNA level at month 6 ($P = .04$). These results emphasize the importance of adherence to optimize the potential benefits of ART for reducing HIV-1 transmission risk.