

Abstract

To evaluate pre-exposure prophylaxis (PrEP) efficacy for HIV-1 prevention among women using depot medroxyprogesterone acetate (DMPA) for contraception and men whose HIV-1 infected partners use DMPA.

Design

Secondary analysis of data from a randomized placebo-controlled trial of daily oral tenofovir and emtricitabine/tenofovir PrEP among heterosexual Kenyan and Ugandan HIV-1 serodiscordant couples

Methods

PrEP efficacy for HIV-1 prevention was compared among HIV-1 uninfected women using DMPA versus no hormonal contraception and among HIV-1 uninfected men whose HIV-1 infected female partners used DMPA versus no hormonal contraception.

Results

Of 4747 HIV-1 serodiscordant couples, 901 HIV-1 uninfected women used DMPA at some point during follow-up, 1422 HIV-1 uninfected women used no hormonal contraception, 1568 HIV-1 uninfected men had female partners who used DMPA, and 2626 men had female partners who used no hormonal contraception. PrEP efficacy estimates for HIV-1 prevention, compared to placebo, were similar among women using DMPA and those using no hormonal contraception (64.7% and 75.5%, adjusted interaction $p=0.65$). Similarly, for men whose female partners used DMPA, PrEP efficacy did not differ from men whose partners used no hormonal contraception (90.0% versus 81.7%, adjusted interaction $p=0.52$).

Conclusions

PrEP is efficacious for HIV-1 prevention among women using DMPA and men whose partners use DMPA, suggesting PrEP could mitigate the potential increased HIV-1 acquisition and transmission risks that have been associated with DMPA use. Women at risk for HIV-1 choosing DMPA could maintain this contraceptive method and add PrEP to achieve prevention of unintended pregnancy and HIV-1.