

PRE-EXPOSURE PROPHYLAXIS IN SERO-DISCORDANT MALE PARTNERS OF HIV POSITIVE WOMEN DESIROUS OF NATURAL CONCEPTION

ADETUNJI OLADENI ADENIJI, ADEWALE SAMSON ADEYEMI & KOLA MUSLIUDIN OWONIKOKO

Department of Obstetrics & Gynaecology, Faculty of Clinical Sciences, College of Health Sciences, Ladoké Akintola University of Technology, Ogbomoso, Oyo State, Nigeria

ABSTRACT

Background

The reproductive health needs of sero-discordant couples are issues of concerns, especially in view of high cost of various assisted conception methods in the low-resource economies. Often times, many of these couples resort to un-informed and unsafe practices of unprotected heterosexual intercourse, leading to HIV acquisition. The magnitude of the health burden of these populations in Nigeria and other developing economies are currently not fully determined. Pre-exposure prophylaxis (PrEP) in conjunction with other HIV prevention strategies provides the only veritable and possibly safe mean of achieving their reproductive desire.

Materials & Methods

This is a cohort study of 42 HIV-1 sero-discordant male partners of known HIV-1 positive women who were desirous of conception. All the male Participants recruited were aware of their female partners' status, had their HIV status determined by fourth generation Enzyme Linked Immunosorbent Assay Kit and were HIV negative, but declined the offer of assisted conception. The HIV positive women were all on Highly Active Antiretroviral Therapy (HAART). Thirty sero-discordant partners were sequentially and equally randomised into the two treatment groups (TDF and TDF-FTC), while 12 participants who declined PrEP made up the control group.

Results

At enrolment the mean CD4 counts of the women of the respective group were 424 cells/ μ L (TDF), 403 cells/ μ L (TDF-FTC) and 395 cells/ μ L (controls). The highest proportion of sexually transmitted infection (50%) was recorded in the control group at enrolment and also during the study (33%). Successful conceptions in each group by the 12th month of the study duration were 60.0%, 40.0% and 16.7% in the TDF, TDF-FTC and the control groups respectively. The highest rate of loss-to-follow-up of 8/12 (66.7%) was recorded in the control group. Overall, the incidence of HIV sero-conversion adjusted for the loss-to-follow-up in the study was 9/33 (27.3%) and the highest group incidence was recorded in the control group at 33.3% and least in the TDF-FTC group at 6.7%. The relative reductions in the rates of HIV acquisition were 51% and 79% in the TDF only and TDF-FTC groups respectively.

Conclusions

In resource constraint settings, where assisted conception methods are either unacceptable, declined or un-affordable to male sero-discordant couples in heterosexual relationships, pre-exposure prophylaxis, preferably oral daily Tenofovir-Emtricitabine combination may be considered in addition to other HIV prevention strategies and timed sexual exposure, towards achieving safe reproductive health needs.

KEYWORDS: HIV, Pre-Exposure Prophylaxis, Sero-Discordant Heterosexual Partners, Reproductive Desire