

ABSTRACT

Objectives: To reduce risk-taking behavior in HIV-discordant couples (male HIV-pos.) willing to conceive a child.

Methods: HIV-discordant couples expressing the desire to conceive a child received a standardized risk reduction counseling including LH-peak measurement and pre-exposure prophylaxis with tenofovir 36 and 12 h before intercourse. Couples were either included after having previously been counseled for artificial insemination with processed semen and quit the program for any reason or after referral through their HIV-physician.

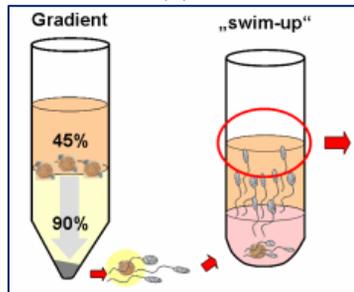
Results: Twenty-two couples were admitted for risk reduction counseling. All male partners have been under a fully suppressive antiretroviral treatment. Six couples admitted that they had previously tried to conceive by unprotected intercourse. Twenty-one couples decided to use the proposed risk reduction strategy with timed intercourse and TDF-pre-exposure-prophylaxis. Pregnancy rates were high with more than 50% pregnancies achieved after 3 cycles (11/21). In 15/21 female partners got pregnant after up to 10 attempts. All women tested negative for HIV-antibodies 3 months after the last exposure.

Conclusions: The true number of HIV-discordant couples who practice unprotected sex to conceive is most likely underestimated. The risk of transmission in a couple with a fully treated male partner is low and can further be reduced by timed intercourse and a short pre-exposure prophylaxis with tenofovir. The pregnancy rates of natural conception are substantially higher than with artificial reproduction techniques (40% in our program).

BACKGROUND

- Approximately half of all HIV-discordant couples express the desire to conceive a child (1)

- Several European centers in reproduction offer insemination with processed semen (2). Most services apply a density gradient centrifugation followed by swim-up of motile sperm (Fig.)



- Pregnancy rates of the different programs vary by method from 40% following intrauterine insemination (IUI) to 70% by in-vitro fertilization(3).

- Approximately one third of the couples who contact an insemination centre do not start the procedure. Half of those conceive a child by unprotected intercourse (4).

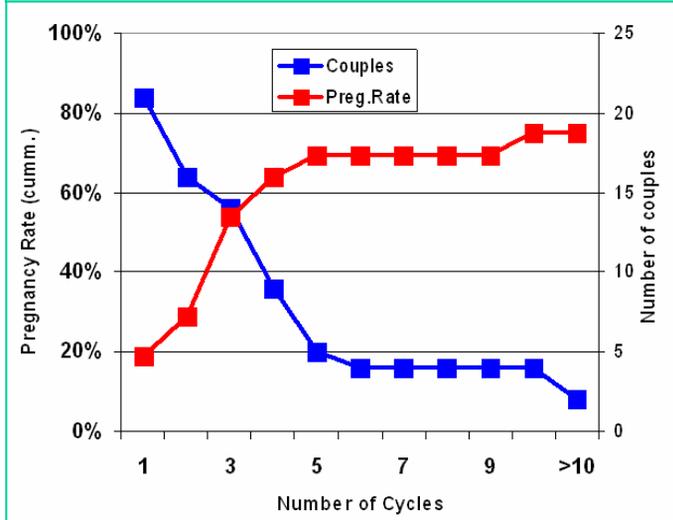
METHODS

- HIV discordant couples were counselled about the minimal risk of transmission during unprotected sex (4).
- An alternative method of timed unprotected intercourse with pre-exposure-prophylaxis (PREP) with tenofovir (TDF) was discussed with all couples
- HIV-RNA in semen was only tested in the beginning of the program but was always undetectable.
- All couples were tested or treated for asymptomatic chlamydia infection
- Urine LH-testing was used for the timing of ovulation
- First dose TDF was given the morning of Urine-LH-peak, the second dose next morning and unprotected sex timed the evening after the second dose.

RESULTS

- Twenty-two couples were counselled at one centre from March 2004 to March 2007 and opted for the alternative program with timed unprotected intercourse and TDF-PREP
- The average time for one counselling was 60 minutes.
- All male partners have been on antiretroviral therapy with suppressed HIV-RNA (<50cp/ml) for > 3 months.
- All female partners were tested HIV-negative 3 months after the last unprotected intercourse
- More than 70% of all women became pregnant, 50% after up to 3 episodes of unprotected intercourse

Fig 2: Pregnancy rates after unprotected intercourse



CONCLUSION

- Given the minimal risk of transmission of HIV during fully suppressive ART, timed unprotected intercourse could be a reasonable alternative to in vitro methods.
- Pre-exposure prophylaxes with 2 doses of tenofovir to further reduce the minimal risk is well accepted
- Not surprisingly, pregnancy rates are signif. higher after natural intercourse than after artificial insemination
- Alternative methods for safe conception in HIV-discordant couples should be further evaluated

References

- 1.Panozzo et al, SMW 2003;133:124-127
- 2.Bujan et al, AIDS 2007 in press
- 3.Savasi et al, Hum. Reprod, 2007; 22:772-777
- 4.Vernazza et al, AIDS. 2006;20:635-6

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