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OS RISCOS DAS FALHAS DA PROFILAXIA À INFECÇÃO HIV COM O USO DE  
ANTIRRETROVIRAIS

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## EDITORIAL

**RISKS OF ANTIRETROVIRAL AGENTS FAILURE ON PROPHYLAXIS OF HIV INFECTION**

Carlos Alberto Moraes de Sá, Jorge Francisco da Cunha Pinto, Fernando Raphael de Almeida Ferry

Since the beginning of HIV epidemics, prophylaxis of AIDS cases has been based on the control of good blood quality, prohibition of intravenously share use of syringes, pre-natal, post-natal and HIV testing, public educational campaigns for enhancement of preservative usage in all insertive sexual practices. The enormous worldwide efforts resulted in enhancement of preventive measures, establishment of December 1st as world AIDS day, and preventive medicine started to be a milestone to control the increasing number of worldwide new AIDS cases.

The introduction of highly active antiretroviral therapy for HIV infected men as of 1996, caused substantial reduction on new AIDS case report. The explanation for this phenomena were reduction in individual HIV infected of serum viral load and suppress of HIV in semen of those men sexually active<sup>(1)</sup>. WHO recommendations for an public health approach, on April 2012<sup>(2)</sup>, as guidance on couples HIV testing and counseling include antiretroviral therapy for treatment and prevention in serodiscordant couples have the risk of worldwide increase in the rate of sexually transmitted infections, especially in developing countries like Brazil, where adults frequently acquire several sexual transmitted infections almost at the sometime, beside the occurrence of multiple concurrent sexual partners. Accordingly, failure of prevention efforts to control sexually transmitted infections may occur and at the same time susceptible individuals may be infected with multiple different infections agents.

This issue of prophylaxis with antiretroviral drugs, must take into account the following considerations, mainly in development countries like Brazil:

- 1- Presence of several strains of HIV-1 including African subtypes and recombinant strains which may alter drug therapy efficacy.<sup>3</sup>
- 2- Ethnic, social, cultural, religious or legal background may change efficacy of prevention and control of sexually transmitted infections.<sup>4</sup>
- 3- Highly active antiretroviral therapy does not completely suppress HIV in semen of sexually HIV infected men who have sex with men.<sup>5</sup>
- 4- Those who use antiretroviral drugs to be protected against HIV-infections, may reduce or avoid the use of preservatives, during sexual practices, and acquired any kind of sexual infections.<sup>6</sup>
- 5- Tablets of emtricitabine 200mg / tenofovir disoproxil fumarate 300mg for treatment and prevention in serodiscordant couples have been reported to cause lactic acidosis, severe hepatomegaly and steatosis, severe acute exacerbation on Hepatitis B, decreases in bone mineral density at lumbar spine and hip, pancreatitis or acute renal failure.<sup>7</sup>
- 6- Sexual relationships without preservatives turn the individuals at risk to acquire syphilis, gonorrhea, hepatitis B, chancroid, chlamydial infections, genital infections with HPV, Epstein-Barr virus - B cell lymphoproliferative disease, human herpesvirus 8 associated with Kaposi's sarcoma with primary effusion lymphoma and with multicentric Castleman's disease.<sup>8</sup>

Therefore, it seems to be adequate to conclude that this isolate antiretroviral combination as weapon of prophylaxis to HIV infection may not be safety or effective. There is still the risk to acquire other sexually transmitted infections additionally.

It is important to remark that there are ethical issues to be considered. Papers published on antiretroviral therapy for treatment and prevention in serodiscordant couples were developed only in African countries. It is necessary to take considerations that those countries have several ethics approach , sometimes with different principles of human rights, values, duty or obligation.<sup>9,10,11,12</sup>

## REFERENCES

1. Morais de Sá CA. A Síndrome Maníaco-depressiva na Epidemia HIV/Aids. DST. Jornal Brasileiro de Doenças Sexualmente Transmissíveis, São Paulo, v. 9, n.1, p. 12-16, 1997.

2. World Health Organization. Guidance on couples HIV testing and counselling including antiretroviral therapy for treatment and prevention in serodiscordant couples: Recommendation for a public health approach. April 2012. WHO library.
3. Caride E; Brindeiro RM; Hertogs, K ; et al. Drug-resistant Reverse Transcriptase Genotyping and Phenotyping and Phenotyping of B and non-B Subtypes (F and A) of Human Immunodeficiency Virus Type 1 found in Brazilian Patients Failing HAART. Journal of Virology, New York, 275(1): 107-115, 2000.
4. Laga M & Piot P. Prevention of sexual transmission of HIV: real results, science progressing, societies remaining behind. AIDS, 26:1223-1229. 2012.
5. Politch, JA; Mayer, KH, Welles, SL. et al. Highly active antiretroviral therapy does not completely suppress HIV in semen of sexually active HIV-infected men who have sex with men. AIDS. 26:1535-1534.
6. Morais de Sá, CA.; Moura, EM; Sion, F. Heterosexual Transmission and Human Sexuality in Brazil. DST. Jornal Brasileiro de Doenças Sexualmente Transmissíveis.9(4):15-20, 1997.
7. Kastrup EK, Walker SE; Dufner K.S et al. Emtricitabine/Tenofovir disoproxil fumarate. Drugs Facts and Comparisons. 1456b - 1456bb. 2009.
8. Holmes, KK. Sexually transmitted Infections: Overview and clinical approach. IN: Fauci, AS et al. Harrison's - Principles of Internal Medicine. 17<sup>th</sup> edition. 2008.
9. Thigpen MC, Kebaabetswe PM; Paxton LA; et al. Antiretroviral preexposure prophylaxis for heterosexual HIV transmission in Botswana. N Engl J Med 367(5) 423-434. 2012.
10. Damme LA; Corneli A; Ahmed K; et al. Preexposure prophylaxis for HIV infection among African women. N Engl J Med 367(5) 411-422. 2012.
11. Baeten JM; Ndase P; Mugo NR; et al. Antiretroviral Prophylaxis for HIV Prevention in Heterosexual Men and Women. N Engl J Med 367(5) 399-410. 2012.
12. Eyawo O; de Walque D; Ford N. et al. HIV status in discordant couples in sub-Saharan Africa: a systematic review and meta-analysis, Lancet Infect. Dis. 10:770-777. 2010.