Differences in sexual behavior between male and female blood donors (BD) in Salvador, Bahia, Brazil—additional evidence for a higher efficiency of male-to-female sexual transmission of HIV-1 infection.

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Objectives: Previous data suggest that the transmission of HTLV-1 in Salvador is mainly via unsafe sexual contact, and that the effectiveness of male-to-female transmission is higher than the other way around. In this study we aimed to directly compare sexual behavior of men and women who provided standardized information for another study conducted by our group.

Methods: A subgroup (post hoc) analysis of a case-control study was undertaken to investigate the risk factors for HTLV-1 infection among BD in the city of Salvador, stratified by gender.

Results: 91 HTLV-1-infected and 194 HTLV-1-non-infected BD participated in the case-control study. The main differences in sexual behavior between men and women were, respectively: age at first sexual encounter 15.8±2.6 vs 18±4.1 (p<0.0001); number of different sexual partners during life 10.5±6.8 vs 4.1±4.4 (p<0.0001); previous self-reported history of sexually transmitted disease (STD) 20% vs 7% (p=0.004); inconsistent (never/rarely) use of condoms during sexual relationship 41% vs 67% (p<0.0001); history of having practiced anal sex 54% vs 28% (p<0.0001). The variables associated to HTLV-1 infection among men were previous history of STD and inconsistent use of condoms. For women the associated variables were number of sexual partners during life, anal sex, inconsistent use of condoms and history of STD.

Conclusion: Men and women differ significantly regarding sexual behavior. The differences in the risk factor profile for HTLV-1 infection between men and women support previous observation of a female vulnerability for HTLV-1 contamination, the causes of which are diverse.