

Poster presentation

Increased risk for acute HIV infection from non-ulcerative STI's in MSM: aggressive STI eradication programs needed for reduction in HIV incidence

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Purpose of the study

Clinical presentation of acute HIV infection is non-specific and may mimic sexually transmitted infections (STIs). Non-ulcerative STIs are prevalent among MSM. We examined the clinical presentation of acute HIV and sexually transmitted co-infections, and the role of non-ulcerative STIs in sexual acquisition of HIV infection.

Methods

9,058 persons testing HIV antibody negative were screened using a pooled HIV NAAT test (pool sizes varied from 24 to 90). STI testing of all at-risk anatomical sites was encouraged.

Summary of results

33 acute HIV infections were detected (positivity rate 0.36%). Of 31 patients concurrently tested, 19 (61.3%) were co-infected with STIs: 13 (41.9%) gonorrhea (2 urethral/7 rectal/7 pharyngeal); seven (22.6%) chlamydia (2 urethral/7 rectal); two (6.5%) syphilis; one (3.2%) herpes, and eight (25.8%) had two or more STI's. 24 saw a medical provider; only 46% reported symptoms and 21% had signs likely caused by HIV; 63% of symptoms and 67% of signs could be attributed to the STI. In 25% of cases there was significant overlap. Unexplained was the high rate of symptomatic oropharyngeal gonorrhea (4/7, or 57.1%) as compared to 4/17 (23.5%) with pharyngitis but no gonococcus. Analysis was adjusted for age, sex, sex-

ual orientation, sexual behavior, and the number of sexual partners in the last 3 months and in the last 30 days. There was a strong association between acute HIV infection and the presence of gonorrhea (OR (95% CI): 3.79, 1.79 – 7.97); chlamydia (OR: 3.28, 1.34 – 7.98), and chlamydia and/or gonorrhea (OR: 4.43, 2.13 – 9.22). The population attributable risk (PAR) for HIV infection associated with gonorrhea was 32.4%, chlamydia 16.8% and chlamydia and/or gonorrhea 44.2%.

Conclusion

When acute HIV and an STI are co-infections, presenting signs/symptoms are more likely due to the STI than HIV, although non-specific symptoms consistent with Acute HIV Infection Syndrome can occur. Pharyngeal gonorrhea was often symptomatic in the setting of acute HIV. All at-risk anatomical sites should be tested for STIs. A high proportion of acute HIV infections in this MSM population are attributable to non-ulcerative STIs. Pooled NAATs for HIV and STI testing provide an opportunity for early HIV detection and STI treatment. For the HIV-negative individual, screening and treatment of STIs is crucial for HIV prevention. For the HIV-infected individual, the screening and treatment strategy will reduce further spread of HIV and STIs.

References

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