Adult male circumcision does not reduce the risk of incident Neisseria gonorrhoeae, Chlamydia trachomatis, or Trichomonas vaginalis infection: results from a randomized, controlled trial in Kenya.

Abstract:

We examined the effect of male circumcision on the acquisition of 3 nonulcerative sexually transmitted infections (STIs). METHODS: We evaluated the incidence of STI among men aged 18-24 years enrolled in a randomized trial of circumcision to prevent human immunodeficiency virus (HIV) infection in Kisumu, Kenya. The outcome was first incident nonulcerative STI during 2 years of follow-up. STIs examined were laboratory-detected Neisseria gonorrhoeae, Chlamydia trachomatis, and Trichomonas vaginalis infection. RESULTS: There were 342 incident infections among 2655 men followed up. The incidences of infection due to N. gonorrhoeae, C. trachomatis, and T. vaginalis were 3.48, 4.55, and 1.32 cases per 100 personyears, respectively. The combined incidence of N. gonorrhoeae and C. trachomatis infection was 7.26 cases per 100 person-years (95% confidence interval, 6.49-8.13 cases per 100 personyears). The incidences of these STIs, individually or combined, did not differ by circumcision status as a time-dependent variable or a fixed variable based on assignment. Risks for incident STIs in multivariate analysis included an STI at enrollment, multiple sex partners within <30 days, and sexual intercourse during menses in the previous 6 months; condom use was protective. CONCLUSIONS: Circumcision of men in this population did not reduce their risk of acquiring these nonulcerative STIs. Improved STI control will require more-effective STI management, including partner treatment and behavioral risk reduction counseling.