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Background We estimated the 72-month efficacy of medical male circumcision (MMC) against HSV-2 seroincidence among men in the randomised trial of MMC in Kisumu, Kenya.
Methods From 2002–2005, 2,784 men aged 18–24 were randomised 1:1 to immediate circumcision or control. At trial end in December 2006, control men were offered free circumcision. Follow-up continued through September 2010. Cox proportional hazards regression incorporating stabilised inverse probability of treatment and censoring weights generated through marginal structural modelling was used to account for potential time-varying confounding and censoring to estimate the efficacy of MMC on HSV-2 risk. Conventional Cox regression identified multivariable risks for HSV-2 acquisition.
Results Among 2,044 men who were HSV-2 seronegative at baseline, the cumulative 72-month HSV-2 seroincidence was 33.1%: 32.7% among circumcised men, 33.5% among uncircumcised men. In weight-adjusted Cox regression, the HR was 0.88 [95% CI: 0.77 – 1.10]. In conventional multivariable analyses, risks ($p < 0.05$) for HSV-2 included: HIV infection [aHR = 3.75], GUD [aHR = 4.75], penile epithelial trauma [aHR = 1.47], ≥ 2 recent sex partners [aHR = 1.54], and being married/cohabiting [aHR = 1.66]. Of men with seroincident HSV-2, 21% experienced GUD and 80% reported penile epithelial trauma. Conversely, 45% of men with GUD and 80% of men reporting penile epithelial trauma did not acquire HSV-2. GUD preceded HSV-2 in 59% of men with both conditions, with median time to HSV-2 of 12 months. Penile epithelial trauma preceded HSV-2 in 92% of men with both conditions, with median time to HSV-2 of 24 months.
Conclusion MMC had no effect on HSV-2 acquisition at 72 months. The temporal sequence and limited correlation between HSV-2, GUD, and penile epithelial trauma indicate these are distinct phenomena, rather than misclassification of HSV-2 symptoms. Determining the aetiology of non-STI GUD and penile epithelial trauma is necessary as both are risks for HIV acquisition, and are common in populations in sub-Saharan Africa.

P3.229 PREVALENCE AND CORRELATES OF *MYCOPLASMA GENITALIUM* IN HIV-POSITIVE AFRICAN WOMEN

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Background To assess the prevalence of *Mycoplasma genitalium* (MG) among HIV-positive African women and its associations with cervical infections and disease, other STI signs and CD4+ counts.
Methods The HARP study aims to evaluate cervical cancer screening tests among HIV-positive women aged 25–50 in Burkina Faso (BF) and South Africa (SA). In addition, real time PCR assays were used to detect *Neisseria gonorrhoeae* (NG), *Chlamydia trachomatis* (CT), *Trichomonas vaginalis* (TV), and MG, using Sacace RT-PCRs in BF, and multiplex PCR followed by confirmatory APTIMA® assays for NG/CT and Sacace RT-PCR for TV/MG in SA. HPV genotyping was performed using Digene® HC2 assay.
Results 628 women were enrolled in BF and 624 in SA, two-thirds of whom were on antiretroviral therapy. The distribution of CD4+ count (cells/μL) was similar in both sites: 68% with CD4+ ≥ 350 and 10% with CD4+ < 200. Prevalence of MG was similar in both populations: 7.1% in BF (41/575) and 7.6% (47/622) in SA, and, overall, 6.7%, 8.2% and 10.1% among women with CD4+ ≥ 350, 200–349 and < 200, respectively (Table). MG was detected in 8.2% of high-risk (HR)-HPV-positive women vs. 3.9% of women without HR-HPV (P = 0.005), and in 7.7% of women with low-grade cervical intraepithelial lesions (LSIL), and 10.0% of women with high-grade lesions (HSIL+) and above vs. 6.2% in women without lesions (P-trend = 0.095). Co-infection with NG, CT, TV and BV was observed in 0%, 11.4%, 11.4% and 9.0% respectively. In multivariate analysis (Table), MG correlated negatively with age (P-trend = 0.003) and clinical PID (aOR = 0.29, P = 0.05), and positively with *T vaginalis* (aOR = 1.7, P = 0.06) but not with any other particular STI infection or syndrome; and tended to increase with decreasing CD4+ count (P = 0.13).
Conclusions MG prevalence is relatively high among these HIV-positive African women and is associated with younger age, trichomoniasis and marginally with CD4.

Table. Multivariate analysis showing factors originally associated in univariate analysis with *Mycoplasma genitalium* in Burkina Faso and South Africa

Abstract P3.229 Table 1

	Mycoplasma genitalium	
	n/N (%)	Adjusted OR (95% CI)
Age group (years)		P-trend = 0.003
25–29	22/243 (9.1%)	1
30–34	31/318 (9.8%)	0.98 (0.52–1.80)
35–39	19/285 (6.7%)	0.60 (0.30–1.20)
40–49	16/351 (4.6%)	0.35 (0.17–0.74)
CD4+ count (cells/μL)		P-trend = 0.13
< 200	12/119 (10.1%)	1
200–349	22/269 (8.2%)	0.62 (0.28–1.40)
>= 350	54/808 (6.7%)	0.54 (0.26–1.10)
T vaginalis		P = 0.06
Negative	59/924 (6.4%)	1
Positive	29/254 (11.4%)	1.70 (0.98–2.92)
Clinical PID		P = 0.05
Absent	73/923 (7.9%)	1
Present	3/116 (2.6%)	0.29 (0.87–0.99)

P3.230 USE OF THE EPI-REVIEW TOOL IN PREPARATION FOR MODES OF TRANSMISSION INCIDENCE MODELLING

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Guyana (one of the most heavily impacted countries by HIV in the Caribbean) embarked upon a Modes of Transmission Incidence Study (MOT) in 2010 with the support of the UN Joint Programme on HIV and AIDS (UNAIDS). The MOT was developed by UNAIDS to help resource constrained countries use pre-existing epidemiological data to estimate the distribution of new HIV infections for the following year by modes of transmission and better target prevention programming. The newly developed EPI- review tool was used to determine data availability and quality.

A technical working group (TWG) conducted an inventory of available data in preparation for the MOT Study. Data was collected