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HIGH LEVEL OF HIV VIRAL SUPPRESSION IN UGANDAN MEN WITH URETHRITIS AND BACTERIAL STI

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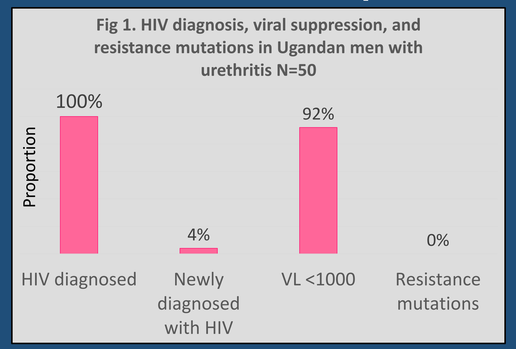
BACKGROUND

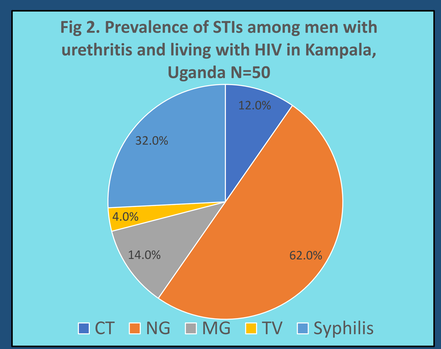
- Historically, control of HIV infection in young men living with HIV (LWH) has been problematic.
- Sexually transmitted infections (STI) can increase the risk of HIV transmission.
- We examined the STI/HIV burden in young men with urethral discharge syndrome (UDS) in Kampala, Uganda.

METHODS

- Between Oct. 2019-Nov. 2020, 250 men with UDS were enrolled at 6 urban sites in Kampala.
- Demographic and behavioral data, blood samples and penile meatal swabs were collected.
- Testing for **gonorrhea, chlamydia, trichomoniasis, and *Mycoplasma genitalium*** used Hologic Aptima nucleic acid amplification tests (Hologic Inc., Marlborough, MA).
- Sequential point-of-care tests were used to screen for **syphilis** and **HIV**, with confirmatory lab-based testing (reverse sequence syphilis algorithm and Bio-Rad GS HIV-1/HIV-2 PLUS O EIA (Bio-Rad Laboratories, Redmond, WA) respectively.
- **Viral load** (VL) was determined using Abbott m2000 RealTime HIV-1 assay (Abbott, Des Plaines, IL).
- For VL >1000 copies per mL (cpm), **recency testing** (Asanté HIV-1 Rapid Recency Assay(Sedia Biosciences, Beaverton, OR)) and **resistance testing** were performed using MiSeq next generation sequencing with NEXTERA index primer sets (Illumina, San Diego, CA).
- Descriptive statistical analysis were undertaken.

The prevalence of **HIV and viral suppression** was 20% and 92% among men with **urethral discharge syndrome** in Kampala, Uganda.





RESULTS

- Participants were recruited from Government health centers; median age of all participants was **24 years** (IQR 22.0, 32.0).
- Among men LWH, **8% (4/50) were not suppressed** (Fig 1), 1 of whom was previously undiagnosed.
- **No major resistance mutations** were found and no viremic individual appeared to be recently infected.
- **STI burden** in this population was high (Fig 2).
- 50% of men LWH had 1 curable STI; **32% had *at least* 2 curable STI.**

CONCLUSIONS

- Most individuals LWH were **already aware of their HIV status.**
- Most had **viral suppression** at <1000 cpm.
- There was **no evidence of drug resistance.**
- These data support **Uganda's progress to 95-95-95 goals.**
- **Bacterial STIs** were common; **32% had syphilis**.
- Men with UDS should be prioritized for **HIV prevention interventions**.
- Further work is required to better **incorporate STI testing** into existing HIV prevention, testing, and treatment frameworks among Ugandan men with UDS.

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