Prevalence of *Mycoplasma genitalium* in HIV+ pregnant women and perinatal outcomes

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BACKGROUND

- *Mycoplasma genitalium* (MG) is a **sexually transmitted organism that may increase the risk of HIV transmission when exposed**
- **Limited consensus about association between MG and adverse pregnancy outcomes, especially HIV+ women**
  - A recent meta-analysis showed a 2-fold increase in the odds of cervicitis, PID, preterm delivery and spontaneous abortion in women with untreated MG
  - However, recent studies found no association
- **South Africa uses syndromic management of STIs**, including in pregnant women

METHODS

- Analyzed data from two observational prospective studies of pregnant women living with HIV at two public sector facilities in **Tswhane and Cape Town, South Africa.**
- Women self-collected vulvovaginal swabs, tested using the Aptima® *Mycoplasma genitalium* assay (Hologic, USA)
- We report on **prevalence (both sites) and incidence (Cape Town only) of MG, and associated symptoms and perinatal outcomes in HIV+ women** using multivariable logistic regression
- STI co-infections play a role in the association between MG and birth outcomes
  - We analyzed MG outcomes in women who had not been treated for CT

Prevalence of MG was high in HIV+ pregnant women: 17% (95% CI=13.4, 20.8)

Incidence of MG was high at 5.7 per 100 woman-years (95% CI=0.96, 18.9)

Most infections were asymptomatic and would have been untreated in standard of care

MG+/HIV+ women (untreated for STIs) had twice the odds of having an adverse pregnancy outcome compared to MG- women (aOR=2.03, 95% CI=0.90, 4.54)

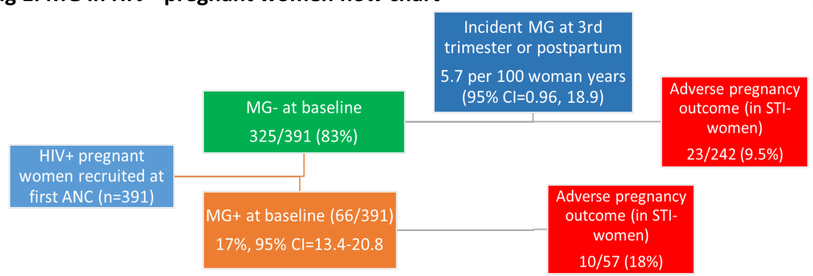
Etiologic screening for HIV-infected pregnant women is needed to manage STIs and prevent HIV transmission and adverse pregnancy outcomes

RESULTS

We enrolled & followed **391 pregnant HIV+ women** from first ANC visit to 1week postpartum:

- 299 from Tshwane (77%)
- 92 from Cape Town (23%)
- **Median age** was 30 years (IQR=26-35)
- **Median gestational age** was 18 weeks (IQR=14-23)
- Most women reported **vaginal sex during pregnancy** (89%)

Fig 1. MG in HIV+ pregnant women flow chart



RESULTS CONTINUED

Prevalence of MG

- **MG prevalence at first antenatal visit was 17%** (n=66 of 391; 95% CI=13.4, 20.8):
  - 15% in Tshwane (n=44 of 299) and
  - 24% in Cape Town (n=22 of 92)

Incidence of MG

- **MG incidence was 5.7 infections per 100-woman-years** (95% CI=0.96, 18.9)

Co-infection with other STIs

- **Half of prevalent MG infections had another STI diagnosed at the same visit** (50%, n=33) and were treated with azithromycin and/or flagyl:
  - Chlamydia trachomatis coinfection in 30% (n=20)
  - Trichomonas vaginalis coinfection in 26% (n=17)

Symptoms in MG+ pregnant women

- **Most MG+ women were asymptomatic (79%, n=52)**
  - Vaginal discharge reported by 6% (n=4)
  - Vaginal bleeding reported by 6% (n=4)
  - Dysuria reported by 6% (n=4)

Adverse pregnancy outcomes

- **Adverse pregnancy outcomes included: pre-term delivery, stillbirth, low birthweight**
  - In MG+ women *untreated for CT* (n=57), 18% (n=10) had an adverse pregnancy outcome
  - In MG- women, 9.5% (n=23 of 242) had an adverse pregnancy outcome
  - **Double the odds of having an adverse pregnancy outcome in MG+/HIV+** pregnant women in *those untreated for CT* (aOR=2.04; 95% CI=0.90, 4.54)

CONCLUSIONS

- We found a **high prevalence and incidence of MG in HIV+** pregnant women
- **Increased proportion of MG+/HIV+ pregnant women had adverse perinatal outcomes**
- **Most infections were asymptomatic** and would have been untreated in standard of care syndromic management
- Further data is needed to **evaluate routine MG screening on birth outcomes**
- **Etiologic screening for HIV-infected pregnant women is needed to manage STIs and prevent adverse pregnancy outcomes**

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