ABSTRACT

Background: The large number of reported associations raising the suspicion that bacterial vaginosis (BV) and/or associated microorganisms might cause preterm birth (PTB) is still controversial. This review summarizes existing data on BV and PTB.


Results: Mixed results demonstrated in studies with differing designs, diagnostic tools, timing of diagnosis, treatment, follow-up, and patient selection. Interpretation/conclusions are partly correct as authors C/K have subsequently publically noted, the study was conceived in the 1980’s and was dated in concept (identifiable and reliably treatable vaginal infections BV, TV) and associated with benefits.

Conclusions: Universal Screening for Bacterial Vaginosis (BV) and/or associated microflora (i.e., BV/AVF) is a cost-effective, easy, widely applicable strategy in US settings.

REFERENCES

1. Screen Atleast ALL women for abnormal flora/BV and common RTIs
2. Early (< 20 wks) screening and prompt treatment if positive
3. Comprehensive screening for common genitourinary infections ASB/UTI, BV, AVF, prevalent STIs is associated with benefits
4. CDC-recommended TOC and retreatment practices did not confer additional benefit
5. Clindamycin and MTZ comparably benefit with < 20 wks gestation
6. No harms noted
7. After 20 wks gestation treatment for AVF is not of proven benefit
8. Proposed approach: screen & treat early (<20 wks) /TOC and retreat
9. Inexpensive, easy, widely applicable, specificity vs sensitivity

DISCUSSION

STRENGTHS & LIMITATIONS

Threats to applicability
1. Meta-analysis
   a. Limited by original study quality
   b. Limited by confounding factors & populations studied
   c. Subject to study selection bias
   d. Limited by analytical techniques

2. Heterogeneity
   a. No consistent design (Di, Rx, TDC, Outcomes, 37 vs 34 wks, LM)
   b. Multiple populations (other prevalent lower reproductive tract infections (PTD) cause PTB; age, ethnicity, etc)
   c. NNE, NIIT refer range 10-fold

STRENGTHS

1. Meta-analysis
2. Summarizes and integrates results from several studies
3. Combination of smaller studies allows examination of outcomes that require larger samples sizes
4. Suggest new studies needed
5. Consistently reviewed studies and interpretation
6. Late P (20.5%) suggesting relative low heterogeneity between studies
7. Consistent with causality criteria "biologically plausible"
8. No harms noted

CONCLUSIONS

1. Biologically plausible and consistent with other studies
2. Early (< 20 wks) screening and prompt treatment with benefit
3. Comprehensive screening for common genitourinary infections ASB/UTI, BV, AVF, prevalent STIs is associated with benefits
4. CDC-recommended TOC and retreatment practices did not confer additional benefit
5. Clindamycin and MTZ comparably benefit with < 20 wks gestation
6. No harms noted
7. NNT varied widely (1: 10 to 1:80)
8. Only Lamont’s study calculated it’s saved and reduced admissions
9. Could not establish different benefits among different race/ethnic groups
10. No standardized approaches

RECOMMENDATIONS

1. Screen all at least 40% of women for abnormal flora/BV and common RTIs
2. Early (< 20 wks) treatment preferred
3. Early Clindamycin (oral vs topical) most beneficial
4. Early Clindamycin and Metronidazole (prior PTB) both effective
5. Late Metronidazole effective in (A) Prior PTB and (B) San Paulo Population
6. Avoid late treatment with Clindamycin
7. “Screen, Treat, Prevent” for all prevalent abnormal genital microflora in all pregnant women at initial visit
8. “Home test in all pregnant women with vaginal pH testing weekly (U. Hoyme, et al)

META-ANALYSIS

Plot shows- High level of heterogeneity between studies (1^2:96%

Comparison of Screening and Treatment for Bacterial Vaginosis

RESULTS

Treatment ≤ 20 wks gestation (9 studies) significantly reduced PTD < 37 wks OR 0.52 (95% CI 0.41-0.66)

Treatment > 20 wks gestation (7 studies) was not associated with reduced PTD OR 0.92 (95% CI 0.89-1.01)

Comprehensive Treatments ≤ 20 wks gestation (4 studies) significantly reduced PTD < 37 wks OR 0.52 (95% CI 0.39-0.72)

Similar to studies that only examined BV OR 0.5 (95% CI 0.32-0.77)