

Background

- The risk of developing TB is highest during pregnancy and in the early postpartum period versus any other time in a woman's life.¹
- Rapid immune changes that occur during the 3rd trimester and postpartum, likely contribute to the increased TB incidence.²
- Symptoms are atypical; expected weight dynamics discourage use of weight loss as TB screen postpartum.
- The goal of this study was to identify predictors of active TB in postpartum.

Design/Methods

Design: Observational, longitudinal study of 234 HIV + and HIV - pregnant women from pregnancy through 12 months postpartum (PP) at a tertiary care public hospital in Pune, India (Sassoon Hospital).

Study Procedures: WHO TB symptom screen and weight measured at each visit

- Inappropriate weight loss defined as decrease in weight of >5% in HIV+ or >10% in HIV- compared with 6 wks PP (Baseline)

Mid Upper Arm Circumference (MUAC) at each PP visit

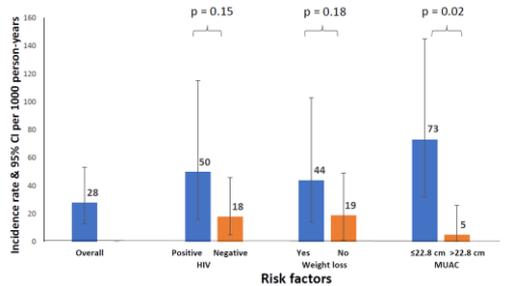
Analysis: Chi-square test for sig. of difference between proportions & Poisson regression for risk factors.

References

1. Zenner D, Kruijshaar ME, Andrews N, Abubakar I. Risk of tuberculosis in pregnancy: a national, primary care-based cohort and self-controlled case series study. *Am J Respir Crit Care Med.* 2012;185(7):779-784
2. Kourtis AP, Read JS, Jamieson DJ. Pregnancy and infection. *N Engl J Med.* 2014;371(11):1077

Results

- 95% with at least one PP visit
- Compared to HIV-, HIV+ women had:
 - Positive WHO TB symptom screen, including inappropriate weight loss (60% vs 32% p <0.0001)
 - Inappropriate weight loss without WHO TB symptoms (19% vs 8%, p <0.0001)
- Active TB detected during follow up: 9 HIV+ 5 HIV- 4. IGRA + 8 IGRA - 1



TB incidence by weight loss: Sensitivity: 56% (21% - 86%) Specificity: 70% (63% - 75%)

Conclusions

- Inappropriate weight loss was a sensitive tool in detecting active TB in postpartum women, especially among HIV+ women.
- In addition to WHO symptom screen, serial MUAC and weight measurements could be used to screen for TB in pregnant and postpartum women
- The predictive value of using weight loss in postpartum visits should be established in other TB-endemic countries to determine if this low-cost measurement can improve early identification and treatment of maternal TB.