

# Chlamydia Trachomatis Infection Among Infertile Women. A systematic review

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# INTRODUCTION

- Chlamydia trachomatis infection is the most prevalent bacterial STI in the world.
- It is a common cause of cervicitis, and sequelae include PID, ectopic pregnancy and tubal factor infertility.
- After single episode PID, relative risk for tubal factor infertility is 10%. Each new episode of PID doubles the risk.

# INTRODUCTION

- Tubal factor infertility ranges from less than 40% in developed countries up to 85% in developing countries (WHO, 1987).
- Past exposure to chlamydia t. & tubal infertility.
- Role of chlamydia as an etiological factor in female infertility is well recognized.

# OBJECTIVES

- identify if a high chlamydia infection prevalence in infertile women is associated with increased risk of tubal infertility.
- To evaluate the validity of diagnostic tests of chlamydia used in infertility work up.

# METHODOLOGY

- Searches on:
  - MEDLINE database,
  - WHO publications,
  - Bibliographies of relevant review articles .
- Criteria:
  - Studies on prevalence of chlamydia infection in infertile women,
  - Diagnostic tests mentioned

# RESULTS

- The original literature search returned:
  - 326 articles from MEDLINE,
  - 3 articles from WHO publications,
  - 5 articles from bibliographies relevant of review articles.
  
- 21 studies met the inclusion criteria.

# RESULTS

- 14 were case control studies
- 7 were descriptives studies
- Study group: women attending infertility clinics or laparoscopy for investigation
- Control group: women attending for FP
- Studies were published from 1984 to 2002

# RESULTS

- Diagnostic tests:
  - culture and serology in 4 articles
  - serology alone in 12 articles
  - antigen detection in 5 studies
  - LCR was done in one study
- Out of 14 case control studies:
  - 13 showed a significant difference of chlamydia infection in study group compared to control group.

# RESULTS

- Seroprevalence in infertile women ranged from 11.9% in Israel to 74.07% in India, compared to 3.4% and 5 % in C.G.
- 10 studies showed a significant association between tubal lesions (infertility) and positive serology for C.trachomatis.

# RESULTS

- Prevalence of chlamydia infection on cervical swab culture was not different in S.G. and C.G
- Despite a significant difference in seroprevalence in these two groups.
  - culture is the diagnostic test of active infection
  - serology is a diagnostic test for past infection.

# CONCLUSION

- Infertility was strongly associated with a positive serology of chlamydia trachomatis,
- However more specific serological tests for chlamydia trachomatis should be used to reduce the false positive from cross-linked reactions.

# CONCLUSION

- Screening for genital chlamydia infection by more sensitive and specific tests should be done in high risk group to prevent the high infertility morbidity.

