Epidemiological Study of Reproductive Tract Infections in Rural Area of Indore District.

Corresponding Author:
Dr. Aditya S Berad,
Assistant Professor, Community Medicine, Index Medical College Indore, India, G7, Index City, Nemawar Road, 452001 - India

Submitting Author:
Dr. Aditya S Berad,
Assistant Professor, Community Medicine, Index Medical College Indore, India, G7, Index City, Nemawar Road, 452001 - India

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Author(s): Berad AS

Abstract

Research Question:
What is the burden of Reproductive Tract Infections in Women of reproductive age group in rural Indore?

Objective:
1) To find out the magnitude of problem of RTIs in women aged 15-44 years in villages of Double Chowki PHC of Indore District, Madhya Pradesh.
2) To study the epidemiological determinants of RTIs.

Design:
Cross-sectional study. Setting: 7-subcentre villages comming under Double Chowki PHC of Indore district.

Material and Methods:
The study was conducted in 7 subcentre villages. The study included all women in the age group of 15-44 years. The sample size was calculated as 421 women taking 5% allowable error. The number of women studied in each village was selected by probability proportional to size (PPS) sampling technique. In the second stage the primary unit of survey was selected using systematic random sampling at each village level. The cases were identified using Syndromic approach and were referred to the subcentre for further clinical examination and treatment.

Results:
The proportion of RTIs symptomatics was found to be 18.7%. Among 79 RTIs symptomatic women, majority (49.3%) of women had only vaginal discharge followed by 37.9% women had vaginal discharge with lower abdominal pain. 1.3% of them had only other symptoms of RTIs which includes genital ulcer, mucopus from cervix and inguinal lymphadenopathy, 5.1% were having vaginal discharge with other symptoms of RTIs and 6.4% had pain in lower abdomen with other symptoms of RTIs.

Conclusion:
There was significant association between RTIs symptomatics and age, age at menarche, age at marriage, age at first conception. The proportion of RTIs symptomatics did not differ significantly with education, occupation, socioeconomic status, religion, parity, history of abortion, use of IUCD, and hygienic practices during menstrual period.

Introduction

Reproductive tract infection covers three types of infections:
1. Sexually transmitted infections.
2. Endogenous infections, that result from overgrowth of organisms normally present in the reproductive tract.
3. Iatrogenic infections associated with medical procedures including abortions and insertion of intrauterine devices.[1]

According to World Health Organisation, the global burden of sexually transmitted infections is estimated to be 333 million cases annually. Based on a number of prevalence surveys and a review of available literature the annual incidence of RTIs/STDs in India is estimated at 5%, or approximately 40 million new infections every year.[2]

This study was carried out with the following objectives:
1) To find out the magnitude of problem of RTIs in women aged 15-44 years in villages of Double Chowki PHC.
2) To study the epidemiological determinants of RTIs.

Methods

The study was conducted in 7-subcentre villages comming under Double Chowki PHC of Indore district. The study included all women in the age group of 15-44 years. The study was conducted from January 200 to February 2005.

Sample size:
Taking prevalence of RTI in women as 20.9% as studied in community based cross-sectional study conducted in Talegaon PHC area of Wardha district[3], the sample size was calculated as 421 women taking 5% allowable error.

The number of women studied in each village was selected by probability proportional to size (PPS) sampling technique. In the second stage the primary unit of survey was selected using systematic random sampling at each village level.

The study subjects were interviewed using questionnaire, which was pretested, in the field before starting data collection.
The cases were identified using Syndromic approach [4] and were referred to the subcentre for further clinical examination and treatment.

For examination written informed consent was obtained.

All women examined in the subcentre were subjected to laboratory investigation for confirmation of RTI.

Those not willing for clinical examination were not included.

Vaginitis was diagnosed when the vaginal wall was visibly inflamed. [5]

The cervix was described as abnormal if oedematous or friable or when mucopurulent endocervical discharge was present. [5]

Lower abdominal pain was diagnosed when adenexae were palpable and tender on vaginal examination with or without restricted mobility of the uterus. [5]

**Data analysis:**

The data so collected was entered in the computer and the analysis was done using EPI Info 6 software. Possible association of variables and RTI was examined applying Chi-square test.

**Discussion:**

The proportion of RTIs symptomatics was found to be 18.7%. The prevalence reported by others was 48.5% (Abraham et al [6]), 14.6% (Thomas et al [7]), 18.4% (NFHS II [8], India) and 18.6% (NFHS II [8], Maharashtra) and 50% (Bang et al.[5])

Among 79 RTIs symptomatic women, majority (49.3%) of women had only vaginal discharge followed by 37.9% women had vaginal discharge with lower abdominal pain. 1.3% of them had only other symptoms of RTIs which includes genital ulcer, mucopus from cervix and inguinal lymphadenopathy, 5.1% were having vaginal discharge with other symptoms of RTIs and 6.4% pain lower abdomen with other symptoms of RTIs. Bang et al [5] reported 13.98% having Trichomonas vaginalis, 34.05% Candidal vaginitis and 62.19% Bacterial vaginitis.

Abraham et al 6 found Trichomoniasis 13%, candidiasis 10%, Bacterial vaginosis 18%. The presence of bacterially positive infection in the present study was found to be 11.87% which is much lower than reported in other studies – varying from 46%, Bang et al 5 to 68%, Bhatia et al 11.

**References:**


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