

ORIGINAL ARTICLE

Profile of sexually transmitted infections (STI) in patients attending 'SURAKSHA' clinics of Madhya Pradesh

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Article Cycle

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Abstract

Background: Reproductive tract infections (RTIs) and sexually transmitted infections (STIs) present a huge burden of disease amongst youth in India (approx. 6%). **Methods:** To study the profile of population affected by STI/RTI and spread amongst both sexes and classify STI according to its various types the present cross sectional study was conducted from Jan 2011 to September 2011. A 12 days training was imparted followed by 3 days refresher training every quarter to counselors. The information was entered in a standardized Computerized Monitoring and Information System format designed by NACO and modified by state AIDS control society on daily basis. **Results:** There were 1, 22, 000 patients of STI/RTI in designated clinics of the state. Out of which females were 75.49% and males 24.4%. Vaginal Cervical Discharge contributed for 59.94% among the STI/RTI patients. The second major cause of STI/RTI is Lower abdominal pain 20.36%. Genital ulcer (Herpetic) 2%, Non-Herpetic ulcer is 3%. The overall prevalence in MP is 5.95%. **Conclusions:** STI/RTI is more prevalent in females as compared to males possibly because of certain established biological factors. Vaginal Cervical Discharge remains the commonest presenting complaint in STD OPD's amongst females followed by Lower Abdominal Pain. Indore, Bhopal, Sagar, Jabalpur and Dewas are amongst the high STI prevalent districts.

Key Words

STI/RTI – Sexually Transmitted Infections/ Reproductive Tract Infections; National AIDS Control Organization; Lower Abdominal Pain; Vaginal Cervical Discharge; Inguinal Bubo, Genital Ulcer Disease; Ano-rectal Discharge.

Introduction

Reproductive tract infections (RTIs) and sexually transmitted diseases (STDs) represent a major public health problem in developing countries. (1) RTIs and STIs present a huge burden of disease amongst youth in India. Though they cause suffering for men and women yet their consequences are far more devastating and widespread among women. Prevalence of STIs are significantly higher

among women than among men in developing countries. (2) World Health Organization estimates that each year there are over 340 million new cases of sexually transmitted infections in which 75-85% occur in developing countries. In India alone, 40 million new cases emerge each year. (3) The disease prevalence is estimated to be 6% in India. What is more disconcerting is that, these infections often go undiagnosed or untreated (about 40% of

women have RTI/STI at any given point of time, but only 1% complete the full treatment covering both partners). The consequences of RTIs are numerous and potentially devastating. These include postabortal and puerperal-sepsis, ectopic pregnancy, fetal and perinatal death, cervical cancer, infertility, chronic physical pain, emotional distress, and social rejection of women. (4) Pelvic inflammatory disease arising from STIs poses a major public health problem adversely affecting the reproductive health of untreated women.

National AIDS control program (NACPIII) and reproductive and child health program (RCH II) under NRHM has recognized the fact that effective prevention and control of sexually transmitted infections is most cost effective intervention to reverse the HIV epidemic and promote sexual and reproductive health.

Syndromic case management (SCM) approach with appropriate laboratory tests is the corner stone of STI/RTI management under NACPIII. This approach classifies STI/RTI into syndromes and provides treatment for the most common organisms causing the syndrome. The syndromic case management achieves high cure rates, because it provides immediate treatment on the 1st visit and at little or no laboratory cost. (5)

Awareness of RTI/STI among men and women is 44.4% and 22.3% respectively and there is an increase in the prevalence of the problem by 17% in the state of Madhya Pradesh. (6)

Aims and Objectives

To study the profile of population affected by STI/RTI and spread amongst both sexes. To classify STI according to its various types.

Methods

Objective of study can be achieved only when one has the pan state data available for

analysis. Also since the STI and RTI has to be classified based on its various types one had to impart training to counselors who were to attend to the patients reporting the symptoms and then enter the information in a standardized Computerized Monitoring and Information System (CMIS) format on daily basis. (Format was designed by NACO (7) and was later modified by state AIDS control society as per the requirements). A 12 days extensive training was imparted followed by 3 days refresher training every quarter to counselors. Patients were attended on all working days in designated STI centers located (Yugal Mangal Kendra Suraksha Clinic) in all district hospitals, exclusive women hospitals, civil hospitals and the medical colleges of the state.

This information was then sent by 5th of every month to Madhya Pradesh state AIDS control society (MPSACS). State headquarters then collated and analyzed it to see if it can be put to use for corrective action. (8)

For the present observational study, information was collected and analyzed from Jan 2011 to September 2011. Supervisory teams were sent every quarter for hand holding and mentoring of medical officers and STI counselors. Supervisory team consisted of medical college faculty from department of PSM, Microbiology, Gynecology and skin-VD. The collected data was transferred to appropriate master table and sub-tables. Analysis was carried out using pivot table of MS excel computer program.

Result

There were 122000 patients who reported with some symptoms of STI/RTI in designated clinics of the state from Jan 11 to Sept 11. Out of which females were 75.49% and males 24.4% clearly indicating the high prevalence amongst women. Thus, it is corresponding well

to the national prevalence as per NACO guidelines. The overall prevalence of STI/RTI in Madhya Pradesh is 5.95%.

Spread of disease: The data from [Table 1](#) clearly points toward the skewed prevalence of Vaginal Cervical Discharge contributing 59.94% among the STI/RTI patients. The second major cause of STI/RTI is Lower abdominal pain 20.36% against the national prevalence of Vaginal Cervical Discharge 45% and LAP 6% and similarly genital ulcer (herpetic) are under reported i.e. just 2% in Madhya Pradesh against the national average as per NACO of 15%. Non-herpetic ulcer is 3% against 0.1% national average. The possible cause could be reluctance of medical and para medical staff in giving injectable Benzathine Penicillin (Kit No 3) for treatment of GUD (Non-herpetic) thus, resulting in low cure rates and high transmission. (9)

Prevalence rate in Districts: On analysis of data and plotting the worst affected districts on state map ([Table 2](#)) the spread of disease is more towards the North of river Narmada. Incidentally most of the districts falling on south of it have large percentage of tribal population. The correlation with the population, their societal norms, and lifestyle clearly depicts that certain areas are more vulnerable than the others and there is a pattern.

It is observed that there are certain districts ([Table 3](#)) that are more notorious than others in absolute terms as well as in spread of almost all kinds of infections. There can be several reasons attributed for this distribution.

Discussion

Indore is a commercial capital of Madhya Pradesh having more than 25 lakh population, situated on three National Highways. It is also the home for automobile, pharmaceutical,

textile and steel industry. In the recent past due to employment opportunities the trade in town has experienced exponential growth. Ready-made garment manufacturings, construction industry, educational opportunities, all have contributed significantly towards the upsurge in its migrant population. Indore, Bhopal are B category high HIV prevalent Districts and as is already an established fact that both HIV & STI share a common route of transmission explains well of high STI in Indore, Bhopal, Dewas & Ujjain.

Dewas is just 30 kms away from Indore on Agra Bombay National Highway this district's future has always hinged on the growth of Indore. Boasting of major Industrial Growth Centre having numerous small/medium scale industries making it vulnerable to the exposure of truckers and migrant population, therefore, a major traffic of truck operators is there, also in want of return load truck operators have to stay for 3-4 days. Dewas is incidentally 'A' category high focus HIV prevalent District also.

Ujjain -This completes the triad of Indore, Dewas and Ujjain, situated just 45 kms away from Indore.

Bhopal, Jabalpur, Gwalior are some of the divisional headquarters having several educational, institutions, state and central government organizations and major rail junctions.

Satna, Chindwara and Sagar are some other districts that have more prevalence and the reasons are difficult to fathom as they are non-tribal mobile populations who show seasonal migrations to other parts of the country. Only exception is Chindwara which has substantial tribal population but shows high prevalence.

The high prevalence of herpetic ulcer is seen in districts of Shivpuri, Gwalior, Morena, Satna & Tikamgarh. These are the districts which form the state boundaries with Uttar Pradesh and

possible causes have to be interpreted with concurrent data and causation arising from Uttar Pradesh.

It is also seen that the drop-out rates from STD centers to ICTC (integrated counseling and testing centers) is quite high i.e. 63.16% the possible causes should be investigated and prompt measures to be taken at MPSACS and District levels to motivate and counsel patients for getting their HIV status checked.

Conclusion

STI/RTI is more prevalent in females as compared to males possibly because of certain established biological factors like: Thin lining of vaginal mucosa, Larger exposed area, Genital fluids stay in contact for a longer time, Use of vaginal douches, Influence of hormonal contraceptives, Different socio-cultural norms for men and women. Vaginal Cervical Discharge remains the commonest presenting complaint in STD OPD's amongst females followed by Lower Abdominal Pain. Districts like Indore, Bhopal, Sagar, Jabalpur and Dewas are amongst the high STI prevalent districts coinciding with the A & B categories districts of HIV prevalence in State. Districts like Chindwara, Sagar have emerged as new districts with increasing trend of various STIs. Districts forming boundaries with Uttar Pradesh have a high prevalence of herpetic ulcer disease and further investigations need to be conducted to know the possible causes there.

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Tables

TABLE 1- TOP TEN DISTRICTS SHOWING STI/RTI INFECTION OF MADHYA PRADESH

S. No	District	Male	Female	Others	Total
1	Jabalpur	1859	4900	99	6858
2	Sagar	2252	3674	14	5940

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7. NACO – Operational guidelines for Programme Managers and Service providers for strengthening RTI/STI services – Oct.2007 – Appendix 'M' Page 67, 68, 69 & Appendix 'K' Page 60.
8. Computerized Monitoring and Information System- MPSACS
9. STI component MPSACS – received written complaints from CMOs and Medical College Dean for non-usage of injectable because of fear of reaction between April to Oct 2011.

3	Bhopal	1641	4197	4	5842
4	Indore	1755	3830	4	5589
5	Gwalior	835	3426	0	4261
6	Dewas	1153	2793	0	3946
7	Chhind-wara	327	3602	0	3929
8	Ujjain	1033	2656	1	3690
9	Satana	1503	2137	0	3640
10	Hoshan-gabad	1063	2373	5	3441

TABLE 2 - DISEASE SPREAD IN MADHYA PRADESH

S. No.	Disease	Percentage
1	Vaginal Cervical Discharge	60%
2	Lower Abdominal Pain	20%
3	Sexually transmitted infections(STIs)	7%
4	Asymptomatic STI	6%
5	Genital Ulcer non-herpetic	3%
6	Genital Ulcer herpetic	2%
7	Ano Rectal Discharge	1%
8	Inguinal Bubo	1%

TABLE 3 - TOP FIVE DISTRICTS – PATTERN OF DISEASE IN MADHYA PRADESH

Vaginal Cervical discharge (VCD)	Genital ulcer (GUD) -non herpetic	Genital ulcer herpetic	Lower Abdominal pain (LAP)	Urethral discharge (UD)	Ano-rectal discharge (ARD)
Chhindwara	Ujjain	Shivpuri	Jabalpur	Satna	Satna
Jabalpur	Sagar	Gwalior	Bhopal	Dewas	Hoshangabad
Bhopal	Tikamgarh	Morena	Dewas	Jabalpur	Tikamgarh
Dhar	Vidisha	Satna	Indore	Sagar	Raisen
Indore	Indore	Tikamgarh	Mandsaur	Hoshangabad	Panna
Inguinal bubo(IB)	Painful Scrotal swelling (SS)	Genital warts	Other STIs	Asymptomatic STI treatment	
Ashok nagar	Panna	Dewas	Sagar	Indore	
Sheopur	Satna	Panna	Panna	Bhopal	
Dewas	Sagar	West Nimar	Jabalpur	Vidisha	
Satna	Rajgarh	Rewa	Ratlam	Chhatarpur	
Sagar	Dewas	Bhopal	Hoshangabad	Jabalpur	