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Research Article

To study prevalence and treatment efficacy of sexually transmitted diseases in patients attending gynaecology outpatient department of tertiary care hospital

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ABSTRACT

Background: Sexually transmitted infection (STI) is a significant public health problem in developing countries, including India. STI and its complications cause a huge health and economic burden over our country. STIs also enhance the transmission of HIV. To screen, prevent and treat this disease WHO has recommended “syndromic approach”. This study was conducted to estimate the local burden of this serious disease with the aim to determine its prevalence and efficacy of syndromic management measured as symptomatic improvement.

Methods: A cross sectional study was carried out for a period of three years from April 2013 to March 2016. All the patients attending gynecology OPD were screened for the presence of an STI and HIV. A detailed history and clinical examination was conducted after informed consent, maintaining privacy and confidentiality. Treatment was given in the form of syndromic management; counseling and partner management and patients were followed up after 7 to 14 days. Improvement in symptoms was noted as “relieved”.

Results: Proportion of STI patients was found to be 32.21%. The most common STI diagnosed was VCD (56.20%), followed by LAP (43.3%). Most commonly affected age group was 25 to 44 years. Proportion of HIV positive among all STI patients was 0.35% and that of serological syphilis was 0.23%. The overall efficacy of treatment was 67.38%. 17.54% patients were not relieved and 15.07% did not come for follow up. The STI was found to be more prevalent in condom non users and in those having more number of child birth and abortions.

Conclusions: With high incidence of STI, the syndromic approach proves to be an important tool in its screening and early treatment. Most of STIs are preventable and curable. Hence educating people, promoting condom use and wide and consistent implementation of screening methods may lead to reduction in the disease burden.

Keywords: STI, Syndromic management, VCD, LAP

INTRODUCTION

Huge burden of sexually transmitted infections and its consequences is posing a public health as well as developmental challenge for the country. In developing countries, STIs and their complications are amongst the top five disease categories for which adults seek health care. In women of childbearing age, STIs (excluding

HIV) are second only to maternal factors as causes of disease, death and healthy life lost.¹

The Government of India has launched various programs through the National Rural Health Mission as a hub of services addressing prevention and treatment of STI and RTI.

Apart from being serious diseases in their own right, STIs enhance the sexual transmission of HIV infection. The presence of an untreated STI can increase the risk of both acquisition and transmission of HIV by a factor of up to 10. Moreover, the improvement in the management of STIs can reduce the incidence of HIV-1 infection in the general population by about 40%. STIs prevention and treatment is, therefore, paramount in HIV prevention strategy.¹ Apart from this, STIs are also known to cause infertility and reproductive morbidity, “Ministry of health and family welfare”.²

There are more than 20 pathogens that are transmissible through sexual intercourse. Many of them are curable by appropriate antimicrobial treatment. However, in spite of the availability of effective treatment, STIs are still a major public health concern.¹ The completeness is further affected by the STIs natural history, since a large number of infections are asymptomatic. Moreover, only part of the symptomatic population seeks health care because of the social stigma that usually is associated with STIs.¹ Although the gold standard for diagnosis of STI is laboratory test, these are often unavailable, too expensive and time taking, especially in developing countries. Therefore syndromic case management has been endorsed by the WHO since 1990. This approach classifies STI/RTI into syndromes (easily identifiable groups of signs and symptoms) and provides treatment for the most common organisms causing the syndrome. WHO estimates that 340 million new cases of STIs have occurred worldwide in 1999. The largest number of new infections occurred in the region of South and Southeast Asia, followed by sub-Saharan Africa and Latin America and the Caribbean.¹

The overall objective of the study was to find out point prevalence of STIs among outdoor patients of Tertiary Care Centre of Gorakhpur. This study will help in situational analysis, monitoring of intervention programme for STI control and efficacy of treatment on the basis of syndromic management.

METHODS

It was a cross sectional study carried out for a period of three years from April 2013 to March 2016. Screening of all patients attending gynaecology OPD of BRD Medical College during this period was done. All participants were interviewed using a structured questionnaire. After informed consent, a detailed clinical and sexual history of the patients was taken. Information regarding socio demographic, education, condom use, obstetric history, menstrual history, history suggestive of high risk behavior etc. was taken. Physical examination was done, maintaining privacy and confidentiality. Syndromic diagnosis was made on the basis of signs and symptoms. A total of 31,974 patients were screened during the study period. This study aimed to estimate;

- Proportion of women with STI as per syndromic diagnosis, among women attending gynecology OPD of BRD Medical College.
- Proportion of different STI syndromes among all STI patients.
- Proportion of STI patients found to be HIV & RPR test positive.
- The efficacy of syndromic case management.
- To assess the risk factors for STI.

All patients were counseled for safe sexual practices, condom use, partner treatment and notification and were followed up after 7 to 14 days.

RESULTS

Proportion of STI patients was found to be 32.21%. The most common STI diagnosed was VCD (56.20%), followed by LAP (43.3%).

Table 1: Proportion of STI patients.

Patients	No.
STI patients	10300
Total patients visited	31974
Proportion of STI patients	32.21%

Table 2: Proportion of different STI syndromes among all STI patients.

Type of STI syndrome	No. of patients suffering with STIs	Proportion of STD patients (N=10300)
VCD	5789	56.20
LAP	4470	43.30
UD	0	0
GUD-H	25	0.24
GUD-NH	5	0.05
ARD	0	0.00
IB	0	0.00
GW	11	0.10
Total	10300	0

Table 3: Distribution of HIV/ syphilis sero positive patients.

Serological status	Positive	Proportion per 100 STI patients
Serological syphilis	16	0.15
HIV	10	0.097
Total studied	10300	0

Most commonly affected age group was 25 to 44 years. Proportion of HIV positive among all STI patients was 0.35% and that of serological syphilis was 0.23%. The overall efficacy of treatment was 67.38%. 17.54% patients were not relieved and 15.07% did not come for

follow up. The STI was found to be more prevalent in condom non users and in those having more number of child birth and abortions probably because of repeated exposure of the genital tract to infections and lowered

immune response as a consequence of child birth and abortions. Also it was found that Prevalence of genital herpes and genital warts was very low and no cases of inguinal bubo and pediculosis pubis was found.

Table 4: Socio-demographic table.

Socio-demographic characteristics	No. of patients suffering with STIs	Proportion of patients (N=10300)
Age group	<20 year	599
	20-24 year	2016
	25-44 year	6866
	>44 year	816
Educational status	Illiterate	5965
	Literate	4335
Socioeconomic status	Upper	526
	Middle	3432
	Lower	6342

Table 5: Treatment outcome of STI patients managed by syndromic approach.

Syndrome	Relieved	Not relieved	No follow up	Total
Cervico vaginal discharge	4430 (76.05%)	634 (11.94%)	636 (11.98%)	5307
GUD-H	24	0	1	25
Lower abdominal pain	2503 (55.99%)	1113 (24.89%)	854 (19.10%)	4470
Total	6930 (67.38%)	1804 (17.54%)	1550 (15.07%)	10284

Table 6: Proportion of STI patients by obstetric history and contraception.

Characteristics	Total (=31974)	STI (=10300)	p-value
Condom users	Yes	23%	<0.05
	No	77%	
Number of live births	None	1.3%	>0.05
	1 or 2 live births	84%	
	>2 live births	14.7%	
History of abortions	No abortion	72.5%	<0.05
	Had abortion	22.5%	

DISCUSSION

The prevalence of STI based on syndromic approach was found to be 32.21% in this study. This finding is in conformity with many recent reports from the Indian researchers.^{3,4} Similar results were observed in studies from other developing world, where prevalence ranged between 30%-40%.⁶ The most common syndrome diagnosed was vaginal discharge (56.20%), followed by lower abdominal pain (43.30%). Vaginal discharge was also the commonest symptom reported in other studies in India.⁷⁻⁹ S C Panda studied 600 women with STI from rural and urban areas of Sundergarh (Orissa). In his study vaginal discharge was found in 91% cases, followed by lower abdominal pain in 64% patients.

The prevalence of STI was highest in the age group 25-44 years (66.66%), followed by 20-24 years (19.57%). Kosambiya et al, Sharma et al and Rathore et al have

reported maximum prevalence in the 25-34 years age group which is comparable to this study and is because of higher sexual activity in this age group.¹⁰⁻¹² However, it was highest in the age group 18-20 years in a study by Geetha Mani.⁸ The difference in present study could be attributed to the composition of the study groups, biological factors and lack of awareness and health seeking among women aged less than 25 years age. Women in reproductive age group constitute 22.2% of population in India.⁸ Maximum burden of the disease was found to be in this age group in this study. Morbidity in this age group results in huge burden on the socio economic and health status of the community. Thus prevention of STI and promotion of early detection and treatment of STI warrants high priority in a developing country like India. Higher prevalence of STI was found in illiterates (57.91%) as compared to literate group (42.09%). Higher prevalence of STI was found in lower socio economic group (61.57%), while 33.32% in middle socio economic group. This is a general phenomenon

among the populations of Asia, including India. Substandard hygiene, promiscuity, lack of awareness and traditional taboos against these diseases are the usual factors responsible for this high prevalence in lower socio economic and illiterate group. Only 0.35% of all STI patients were found to be HIV positive in this study.

STI was more prevalent in condom non users (83%) vs condom users (17%). This confirms the well-known fact that contraceptive methods like condoms have a protective role in prevention of most STI. It was also found to be more prevalent in those who had more than two live births and was significantly associated with history of abortion. These risk factors are amenable to change by health education and counseling.

The syndromic approach method which is being followed in this study setting is proving to be an important tool in early screening and treatment of the masses having STI. After taking history, the treatment of partner was also taken. So recurrence rate was markedly reduced. Early start of the treatment by syndromic approach and supply of kits by the government (NACO) ensures treatment to the poorest of the poor. Treatment efficacy of syndromic approach was found to be 67.38% as compared to failure rate of 17.54% 15.07% women did not come for follow up.) in the present study. Thus protecting the masses of our country from the menace of HIV and STI. The increase in reported cases and rates over the study period of three years is likely to reflect the continued expansion of screening efforts and counseling.

The limitation of this study is that only symptomatic patients attending gynaecology OPD of a tertiary care centre were included. There will be many more symptomatic patients not attending any health facility. Thus a study with larger sample size representative of the whole population of the region is needed.⁸

Thus the large burden of STI can be decreased by preventing the occurrence of new cases and effective treatment of the prevalent cases. Most of the STIs are preventable. Preventing new cases requires educating people about the common symptoms, common methods of transmission, complications and preventive measures. There is also a need to alleviate the stigma associated with STIs and favorably modify the treatment-seeking behavior of the patients. Promoting condoms and their availability to the general people are also important steps in prevention of the disease.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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