

Sexually transmitted diseases in Assam: An experience in a tertiary care referral hospital

L. Saikia, R. Nath, T. Deuori¹, J. Mahanta²

Department of Microbiology,
¹STD Clinic, Assam Medical
College and Hospital,²Regional
Medical Research Centre for
Northeast (ICMR), Dibrugarh,
India

Address for correspondence:
Dr. Lahari Saikia, Department
of Microbiology, Assam
Medical College, Dibrugarh,
Assam, India. E-mail:
lahari.saikia@yahoo.com

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ABSTRACT

Background: Sexually transmitted diseases (STDs) including AIDS are becoming a major public health problem in developing countries worldwide. **Aims:** All the adult patients attending VCTC and STD clinics of Assam Medical College between May 2002 and December 2005 were enrolled in the study. **Methods:** Records of patients with high-risk sexual behavior and presence of STD on clinical examination were recorded in a predesigned proforma. **Results:** Of 479 individuals, 186 (38.8%) had evidence of STD and 70 were positive for HIV. Most (64%) were in the age group of 15 to 30 years. Candidiasis (vulvovaginal candidiasis in women and candidal balanitis/balanoposthitis in men) was the most common finding on clinical examination (21.5%) followed by syphilis (17.2%), genital warts (15%), herpes genitalis (11.3%), non-gonococcal urethritis (10.8%), and gonococcal urethritis (7%). **Conclusion:** High percentage of unmarried people (>45%) reporting with STD, which points to potential danger of HIV transmission in the region.

Key words: Sexually transmitted diseases, Candidiasis, Syphilis, Assam

INTRODUCTION

Sexually Transmitted diseases (STDs) are dynamic and show variable prevalence in different parts of the country.^[1-6] Moreover, many people with common STDs remain asymptomatic and without diagnosis or even after diagnosis do not continue treatment. Because of a strong association between HIV infection and STDs, particularly with ulcerative lesions (such as chancroid, syphilis and genital herpes), it is important to understand the profile of the people with STD in a particular region in order to devise appropriate control measure. The present study aimed to understand the profile of STDs in this part of the country. Since these patients remain partially hidden, the study was restricted among hospital attendees only.

METHODS

A retrospective study was conducted to analyze the profile of adult patients with high-risk sexual behavior attending voluntary counseling and testing centre (VCTC) and STD clinic between May 2002 and December 2005 at Assam Medical College Hospital,

Dibrugarh, India. A total of 985 patients gave voluntary consent for HIV testing and relevant laboratory tests and clinical examination for other STDs. Diagnosis of STDs were made on the basis of history, clinical examination and relevant laboratory investigation. They were clinically examined for the presence of STD as per standard guideline and detailed demographic status as well as social and sexual behavior were recorded. Diagnosis of HIV was confirmed by competitive ELISA and rapid tests, as recommended by the National AIDS Control Organization (NACO).

RESULTS

Of 985 VCTC attendees, 479 (48.6%) gave history of high-risk sexual behavior, and 186 of 479 (38.8%) had STDs. Table 1 shows the education and economic status of all STD patients. A large proportion of the respondents belonged to low socioeconomic status and a majority of them had formal education. Age, sex and marital status have been depicted in Tables 2 and 3. A high proportion of married individuals who had STDs gave a history of extramarital sexual contact.

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Table 1: Sociodemographic status of sexually transmitted disease patients (n = 186)

Status	No. patients (n = 186)	Percent
Education		
Illiterate	54	29
Primary school	32	17.2
High school	55	29.6
College and universities	45	24.2
Employment status		
Low paid job (<Rs. 24,000/annum)	98	52.7
Middle paid job (Rs. 24,000-60,000/annum)	55	29.6
High paid job (>Rs. 60,000/annum)	5	2.7
Students	10	5.4
Unemployed	18	9.7

Table 2: Age and sex distribution of sexually transmitted disease patients (n = 186)

Age in years	No. STD patients		Total	Percent
	Male	Female		
15-20	10	7	17	9.1
21-30	64	38	102	54.8
31-40	45	16	61	32.8
41-50	1	1	2	1
>51	3	1	4	2

Table 4 shows the different types of STD present in these patients. Candidiasis (vulvovaginal candidiasis in women and candidal balanitis/balanoposthitis in men) was found to be the most common STD (21.5%) followed by syphilis (17.2%), genital warts (15%), herpes genitalis (11.3%), non-gonococcal urethritis (NGU) (10.8%), gonococcal urethritis (GU) (7%), sexually transmitted scabies and pediculosis (6.5%), chancroid (5.9%) and lymphogranuloma venereum (LGV) (4.8%) [Table 4]. HIV infection associated with STD was found to be in 17.2% of patients.

DISCUSSION

In the present study, the relative high prevalence of HIV among STD patients, in comparison to the study conducted by Jaiswal *et al.*,^[1] may be due to recruitment of patients from STD clinic and VCTC.

Further, in the present series, most patients were from low-and middle-income group and more than half (53.8%) of them had formal education. Study done in Bangalore, India also suggests that formal education had little impact on their sexual behavior.^[2]

Table 3: Marital status of sexually transmitted disease patients (n = 186)

Marital status	Male	Female	Total	Percent
Married	57	44	101	54.3
Unmarried	66	19	85	45.7

Table 4: Pattern of sexually transmitted disease (n = 186)

STD	No. patients	Percent
Candidiasis (vulvovaginal candidiasis in female and candidal balanitis/balanoposthitis in male)	40	21.5
Syphilis	32	17.2
Genital warts	28	15
Herpes genitalis	21	11.3
Non-gonococcal urethritis	20	10.8
Gonococcal urethritis	13	7
Scabies and pediculosis	12	6.5
Chancroid	11	5.9
Lymphogranuloma venereum	9	4.8
Total	186	

Similar to the findings of other studies carried out in other parts of India,^[1,5,6] a majority of our patients (64%) were also in the age group of 15 to 30 years with male preponderance. Although women are more vulnerable to STD, yet lower number of STD patients in the present series (33.9%) is perhaps indicative of their poor accessibility to health care service particularly for sexual disorders.^[3] Further, female patients attend a gynecologist first for any diseases rather than a STD clinic, which might influence the actual number.

In the present study, it has been observed that about half of the patients suffering from STD were unmarried (45.7%). Although in India, sexual relation before marriage is not socially and culturally acceptable, yet high incidence of premarital sexual relation had been reported in some studies.^[2,4] Premarital sexual contact and STDs among unmarried individuals point to a potential danger for HIV transmission. Among the married individuals too, extramarital sexual relation to the extent of 68% was observed. Thus suggesting, weakening of the traditional familial and social control on sexual behavior. Perhaps migration due to profession, an increasing number of women taking up jobs outside home, decline in joint family and increase tolerance to antisocial activities might have contributed to this phenomenon. The alarming high proportion of extramarital sexual relation needs further evaluation and analysis.

The study showed relatively higher prevalence of candidiasis (21.5%) and viral infection (genital warts and herpes genitalis) in comparison to bacterial infections. This may be a result of the increasing use of broad-spectrum antibiotics purchased over the counter, self-medication due to stigmatization of STD and non-reporting to medical facility for proper diagnosis and treatment. Similar upward trend of fungal and viral infection in Manipur was also recorded.^[5,6] The present study showed a relatively higher prevalence of syphilis (17.2%) in comparison to the study done by Jaiswal *et al.*,^[1] (9.62%), and this may be due to the selective attendance of STD patients in VCTC for fear of HIV infection and nonspecific as well as use of inadequate dose of antibiotics.

Percolation of HIV infection to the general population of India is becoming a great concern for public health planner. This study showed that present day formal education had little impact on prevention of STDs, perhaps health education including STDs and HIV should be incorporated in formal education to address

the issue. Awareness program should emphasize on safe sex, use of condoms and avoidance of promiscuity.

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Editor's note: Genital candidiasis is not a sexually transmitted disease, unless transmitted in conjugal relationship.