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Original Research Article

"Pattern of Sexually Transmitted Infections: Treated in A Private Clinic at Dhaka, Bangladesh"

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Abstract: ***Background:*** Sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), continue to present major health, social, and economic problems in the developing world, leading to considerable morbidity, mortality, stigma and long-term disability, economic loss and death throughout the world. Despite the availability of effective treatment and preventive measures, incidence of STIs is increasing even in developed countries. ***Objectives:*** To determine the pattern of sexually transmitted infections in patients presenting with genital symptoms. ***Material and Methods:*** A cross sectional, descriptive study was carried in the Dermatology-Venereology Clinic of Holy Lab Diagnostic & Consultation Centre, Uttara, Dhaka, Bangladesh from January to December 2019. During one year period, a total of 140 consecutive cases were enrolled in this study. The diagnosis of infections was made clinically with relevant laboratory investigations and they were interviewed for their sexual behaviour after taking consent and assuring confidentiality. ***Results:*** A total of one hundred forty (140) patients who presented with genital symptoms were studied. The average age of this population was 28.84 years (±9.15) and it ranged from 18-58 years. 3.7% belonged to age group 18-27 years, followed by 28-37 years (22.1%); 38-47 yrs (52.8%); 48-57 yrs (18.5%) and > 57 yrs (2.8%). Majority patients of 38-47 yrs 74 cases 52.8%. Males outnumbered females, constituting 76.2% of the total patients, with male to female ratio of 3.37:1. Out of the total 140, some had multiple complaints while others were asymptomatic. Majority cases of burning micturition in both male and female patients 39(24%). Burning micturition and discharge from genitalia was also observed in both sexes. The most frequently encountered infection in both male and female was *Gonococcal Urethritis* (GU) 42 (30%). The infections were common among both married and unmarried people. Other group of people who had no STI (23.5%) was suffering from venereophobia, pearly penile papules and some form of dermatitis. No case of HIV infection was encountered in this study. *Gonococcal Urethritis* was common mainly among businessman, transportation worker, security personnel and housewives. Other infections were equally dispersed in all other occupation groups. ***Conclusions:*** The prevention and control of STI is based on health education, appropriate diagnosis and treatment. Sexually active people adolescents and young adults should be provided with proper sex education about delaying sex debut and protective measures (correct and consistent use of barrier method during every sexual act) to prevent these infections with especial focus on monogamous relationship.

Keywords: Sexually Transmitted Infections, Sexual Behavior, Genital Symptoms.

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INTRODUCTION

Sexually transmitted infections (STIs) are also commonly called sexually transmitted diseases (STDs). They are the infections one get from another person through sexual contact. There are more than 20 known types of STDs/STIs. Sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), continue to present major health, social, and economic problems in the developing world, leading to considerable morbidity, mortality, and stigma. The prevalence rates apparently are far higher in developing countries where STI treatment is less accessible [1]. STDs may show various trends in different parts of the country and constitute a major public health problem for both developing and developed countries. Their profile varies with changes in socioeconomic, cultural, geographic, and environmental factors prevalent in different parts of the country [2]. However, due to lack of adequate laboratory infrastructure in the country, information regarding the profile of STIs relies essentially on syndromic diagnosis. Hence there is very limited data of laboratory-proven STIs [3, 4]. STIs increases the risk of transmission of HIV infection causing immense need to understand the patterns of STIs prevailing in the regions of a country for proper planning and implementation of STI control strategies. Due to the lack of adequate laboratory infrastructure in the country, information regarding the profile of STIs relies essentially on syndromic diagnosis [5]. However, the availability of baseline information on the epidemiology of STIs and other associated risk behaviors remains essential for the designing, implementing, and monitoring successful targeted interventions [6, 7]. The World Health Organization (WHO) has placed emphasis on syndromic approach for case measurement and management, particularly in high-prevalence areas having inadequate laboratory facilities, trained staff, and transport facilities.[8] Though the syndromically diagnosed STI has many limitations, continuous analysis of risk assessment and prevalence-based screening studies are necessary to evaluate and monitor the performance of syndromic management [9].

MATERIAL AND METHODS

A cross sectional, descriptive study was carried in the Dermatology & Venereology Clinic of Holy Lab Diagnostic & Consultation Centre, Uttara, Dhaka, Bangladesh from January to December 2019. A total of 140 patients were enrolled in the study who presented with STI related symptoms and/or positive serological tests for STIs. After assuring confidentiality for the provided information verbal consent was taken from each patient. The patients were interviewed according to a standard proforma which contained demography of patient, presenting complaint and sexual behaviour. The diagnosis were made clinically and were supported by relevant laboratory investigations [10]. The diagnosis of herpes Genitalis was done on clinical ground supported by serology. Genital wart and Molluscum contagiosum were diagnosed on clinical ground only; VDRL test confirmed by TPHA for syphilis and screening test for HIV was carried out in all patients with genital symptoms after providing voluntary counseling and testing (VCT). Diagnosis of gonococcal urethritis was made by gram stain of urethral discharge/ prostatic smear in case of male high vaginal Swab & vaginal discharge in case of female. Those refusing test; denying sexual exposure; less than 18 years and not willing to participate in the study were excluded from the study.

RESULTS

A total of one hundred forty (140) patients who presented with genital symptoms were studied. The average age of this population was 28.84 years (±9.15) and it ranged from 18-58 years. 3.7% belonged to age group 18-27 years, followed by 28-37 years (22.1%); 38-47 yrs (52.8%); 48-57 yrs (18.5%) and > 57 yrs (2.8%). Majority patients of 38-47 yrs 74 cases 52.8%. Males outnumbered females, constituting 76.2% of the total patients, with male to female ratio of 3.37:1(Table-1). Regarding educational status, only 23% were illiterate though majority (32%) had studied up to secondary level, HSC (29%), and 16% was going to university (Fig-1). Out of the total 140, some had multiple complaints while others were asymptomatic. Majority cases of burning micturition in both male and female patients 39(24%). Burning micturition and discharge from genitalia was also observed in both sexes (Table 2). The most frequently encountered infection in both male and female was *Gonococcal Urethritis* (GU) 42 (30%). The infections were common among both married and unmarried people (Table-3). Other group of people who had no STI (23.5%) was suffering from venereophobia, pearly penile papules and some form of dermatitis. No case of HIV infection was encountered in this study. Gonococcal Urethritis was common mainly among businessman, transportation worker, security personnel and housewives. Other infections were equally dispersed in all other occupation groups (Table-4).

Table-1: Age distribution of Patients (N=140)

Age	Male	Female	Total (%)
18-27 Yrs	4	1	5 (3.7)
28-37 Yrs	25	6	31 (22.1)
38-47 yrs	56	18	74 (52.8)
48-57 Yrs	20	6	26 (18.5)
>57 Yrs	3	1	4 (2.8)

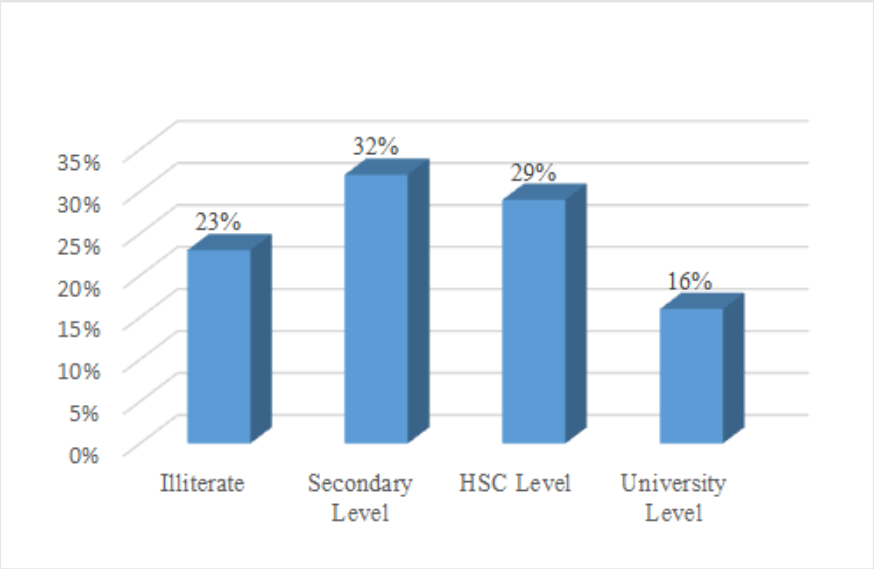

Fig-1: Education level of patient's status.

Table-2: Clinical presentation of the patients (N=162)

Clinical Presentation	Male	Female	Total
Discharge	24	4	28
Ulcer	15	3	18
Fleshy growth/papule	17	8	25
Itching/Irritation	24	14	38
Genital pain	8	6	14
Burning micturition	27	12	39
Total	115	47	162*

*Number is more than the study population because some patients had more than one symptom.

Table-3: Pattern of STIs in relation to marital status (N=140)

STIs	Married	Unmarried	Divorce	Widow	Total (%)
Syphilis	18	6	3	1	28 (20.0)
Genital wart	10	7	-	-	17(12.1)
GU	25	17	-	-	42 (30.0)
NGU	2	5	1	-	8 (5.7)
HSV	4	5	-	-	9 (6.4)
MC	3	-	-	-	3 (2.1)
Other	15	18	-	-	33 (23.5)
Total	77	58	4	1	140 (100)

Table-4: Pattern of STIs by occupation and gender (N=140)

Occupation	Syphilis		GU		Genital wart		NGU		HSV		MC		Other		Total (%)
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Businessman	2	-	6	1	4	-	2	-	2	1	-	-	8	-	26 (18.5)
Transport staff	6	-	4	-	3	-	1	-	1	-	1	-	1	-	17 (12.1)
Security personnel	1	-	3	-	2	-	-	-	1	-	-	-	8	-	15 (10.7)
Housewife	-	2	-	2	-	3	-	4	-	1	-	-	-	4	16 (11.4)
Unemployed	3	-	7	-	2	-	-	-	-	-	-	-	2	-	14 (10)
Student	-	2	3	3	1	-	-	-	-	-	-	-	5	-	14 (10)
Farmer	2	-	2		4	-	-	-	2	-	-	-	1	-	11 (7.8)
Hotel staff	1	-	2	1	2	-	1	-	-		-	-	1	-	8 (5.7)
Labourer	2	-	-	-	-	-	1	-		-	-	-	1	-	4 (2.8)
Others	2	1	7	1	2	1	-	-	-	-	1	-	-	-	15 (10.7)
Total	19	5	34	8	20	4	5	4	6	2	2	0	27	4	140

DISCUSSION

This study analysis offers an important insight into the burden and pattern of various STIs and on the performance of syndromic management of STIs in comparison with laboratory diagnosis. The average age of this population was 28.84 years (±9.15) and it ranged from 18-58 years. 3.7% belonged to age group 18-27 years, followed by 28-37 years (22.1%); 38-47 yrs (52.8%); 48-57 yrs (18.5%) and > 57 yrs (2.8%). Majority patients of 38-47 yrs 74 cases 52.8%. Males outnumbered females as in several other studies [11-13]. The reason behind this less number may be due to the fact that STI symptoms in females are less pronounced than in males and more often female patients attend Gynaecology clinic first [14]. Moreover socio-cultural restrictions prevent them from visiting STI clinic until becomes unbearable. High male preponderance may be due to more freedom they enjoy in the society and also existence of higher degree of promiscuity among them [13]. Regarding the occupation, majority were businessman, transportation worker, security personnel and housewives. But in other studies STI were more common among agriculturists, housewives and laborers [12-15]. The reason for large number of businessman visiting our clinic might be due to comprising the bulk of sexually active group that were residing in the capital. Majority case of burning micturition male and female patients 39(24%) observed in this study. The increasing trend of viral STI has also been observed by many others [16]. Syphilis was the second commonest disease seen in our patients, similar to that reported in other studies [11, 17]. All cases were latent syphilis. No case of HIV was found in our study, a finding similar to that in other studies [7, 12, 18]. All types of STI were common among married people, similar to others [10, 11, 19]. The mean age of sex debut was 18.95 years in this study which was comparable to other studies [8, 23]. Males (85%) seemed quite advanced in this matter as in other observations [12, 20]. Males enjoy freedom in all aspects of society including sex because of which there is male preponderance in STIs at an early age. Sexual debut at younger age makes them likely to have multiple partners in future which make them vulnerable for acquisition of STIs [21]. This finding shows that the major source of infection for female patients was their spouse or sex partner while premarital and extramarital exposures were the major sources for males. The present study also showed that each STI is more common among married people which was also a similar finding in other studies [16, 22]. Unmarried and those married but living apart from their partners were at significant risk for acquiring STDs because they were exposed to high risk sexual behavior to satisfy their sexual desire, eventually increasing the chance of acquiring STIs [23, 24]. Though bariar method like condom is used as one of the preventive measures for STI/HIV only a few people had used it in the last exposure, 50% used condom to avoid pregnancy whereas only 45% used this for disease prevention, a finding similar to that of Flleischer [25, 26, 27]. Good clinical care for patients with STIs should extend beyond therapy and include help to avoid future infections. Control activities should focus on the primary prevention of infection through safer sexual practices. Strategies for improving secondary prevention should include identification of people at risk and targeting them for intervention. The control measures for STI should target risky sexual behaviours in the community.

CONCLUSION

The prevention and control of STI is based on health education, appropriate diagnosis and treatment. Sexually active people, adolescents and young adults should be provided with proper sex education about delaying sex debut and protective measures (correct and consistent use of barrier method during every sexual act) to prevent these infections with especial focus on monogamous relationship.

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