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Clinico-epidemiological profile of 1000 patients attending STI/RTI clinic

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Abstract

Sexually transmitted infections (STIs) are a known risk factor for Human Immunodeficiency Virus (HIV) transmission, with reference to both susceptibility to infection and infectivity. Both ulcerative and non-ulcerative inflammatory STIs are associated with an increased risk of HIV transmission.

Out of all the patients reporting to STI/ RTI (Reproductive Tract Infection) clinic, 1000 patients with symptoms and clinical features of STI/RTI were examined. The data were collected on a prescribed proforma and were analyzed statistically. In our study, the highest number of female patients had bacterial vaginosis i.e. 244 patients (38.2%), followed by 205 females (32.1%) having candidial vulvovaginitis. Forty-seven females (7.4%) had cervicitis, 29 (4.5%) had herpes genitalis, 26 (4.1%) had ano-genital warts, 21 (3.3%) had molluscum contagiosum while 12 females (1.9%) were diagnosed to have pelvic inflammatory disease.

Among the male patients, balanoposthitis was the most common STI, seen in 136 patients (37.6%), followed by herpes genitalis in 91 (25.1%) patients, anogenital warts in 47 males (13.0%), and molluscum contagiosum in 28 (7.7%) patients. To conclude, infective bacterial and fungal STIs constitute the major burden at the STI/RTI clinics. Syndromic management i.e. treatment based on easily identifiable symptoms and signs (syndrome) is useful for tackling the increasing burden of STIs. It is a comprehensive approach. The basis of this approach is the fact that many sexually transmitted pathogens are known to produce similar clinical features. [1]

Introduction

Sexually transmitted diseases are the most formidable enemy of human race; enemies entrenched behind the strongest human passion and deepest social tragedies. The population explosion, migration of rural population to urban centers and increasing promiscuity have all led to enormous spread of sexually transmitted diseases in the community. [1]

Methods

The present study comprised of 1000 patients with STI/RTIs attending the department of Dermatology, Venereology and Leprosy and the department of Obstetrics and Gynaecology of Guru Nanak Dev Hospital attached to Government Medical College, Amritsar.

A detailed history was taken which included any history of premarital / extramarital sexual contact, blood transfusion, intra-venous drug use and was recorded on a proforma. It was followed by general physical examination and mucocutaneous examination. The data collected were analyzed statistically to know the clinico-epidemiological profile of the 1000 cases.

Results

Table 1 shows the demographic profile of the study patients. Among the 1000 studied cases, the majority were females i.e. 638 (63.8%) while males were 362 (36.2%) in number. The majority of cases were in the 16-30 years age group i.e. 464 (46.4%) cases, followed by 31-45 years age group i.e. 426 cases (42.6%).

Demographic Features	No. of patients	%
Gender		
Male	362	36.2
Female	638	63.8
Rural/Urban Distribution		
Rural	390	39
Urban	610	61
Age (in years)		
<15	0	0
16-30	464	46.4
31-45	426	42.6
45-60	108	10.8
>60	2	0.2
Occupational Status		
House wife	498	49.8
Farmer	81	8.1
Govt. employee	73	7.3
Unskilled worker	84	8.4
Skilled worker	154	15.4
Driver	26	2.6
Student	39	3.9
Others	45	4.5
History of pre/extra- marital sexual contact		
Present	263	26.3
Absent	737	73.7
Marital status		
Married	904	90.4
Unmarried	67	6.7
Widow	24	2.4
Divorcee	5	0.5

Table 1: Showing demographic profile Of 1000 study cases

In our study, the highest number of female patients had bacterial vaginosis i.e. 244 patients (38.2%), followed by 205 females (32.1%) having candidial vulvovaginitis. Forty-seven females (7.4%) had cervicitis, 29 (4.5%) had herpes genitalis, 26 (4.1%) had ano-genital warts, 21 (3.3%) had molluscum contagiosum while 12 females (1.9%) were diagnosed to have pelvic inflammatory disease {**Table 2 and Fig 1**}.

Among the male patients, balanoposthitis was the most common seen in 136 patients (37.6%), followed by herpes genitalis in 91 (25.1%) patients, anogenital warts in 47 males (13.0%), and molluscum contagiosum in 28 (7.7%) patients {**Table 2 and Fig 1**}.

Clinical Diagnoses	Male		Female		Total	
	No. of cases	% age	No. of cases	% age	No. of cases	% age
Balanoposthitis (BP)	136	37.6	0	0	136	13.6
Bacterial vaginosis (BV)	0	0	244	38.2	244	24.4
Candidial Vulvovaginitis (CVV)	0	0	205	32.1	205	20.5
Herpes genitalis (HG)	91	25.1	29	4.5	120	12
Urethral discharge (UD)	13	3.6	2	0.3	15	1.5
Genital ulcer disease (GUD)	23	6.4	12	1.9	35	3.5
Anogenital warts (CA)	47	13	26	4.1	73	7.3
Molluscum contagiosum (MC)	28	7.7	21	3.3	49	4.9
Scabies (SC)	19	5.2	0	0	19	1.9
Pelvic inflammatory disease (PID)	0	0	12	1.9	12	1.2
Cervical erosion (CER)	0	0	47	7.4	47	4.7
Pediculosis pubis (PP)	5	1.4	0	0	5	0.5
Non- specific discharge (NS)	0	0	40	6.3	40	4
Total	362	100	638	100	1000	100

Table 2: showing the clinical diagnosis in 1000 study cases

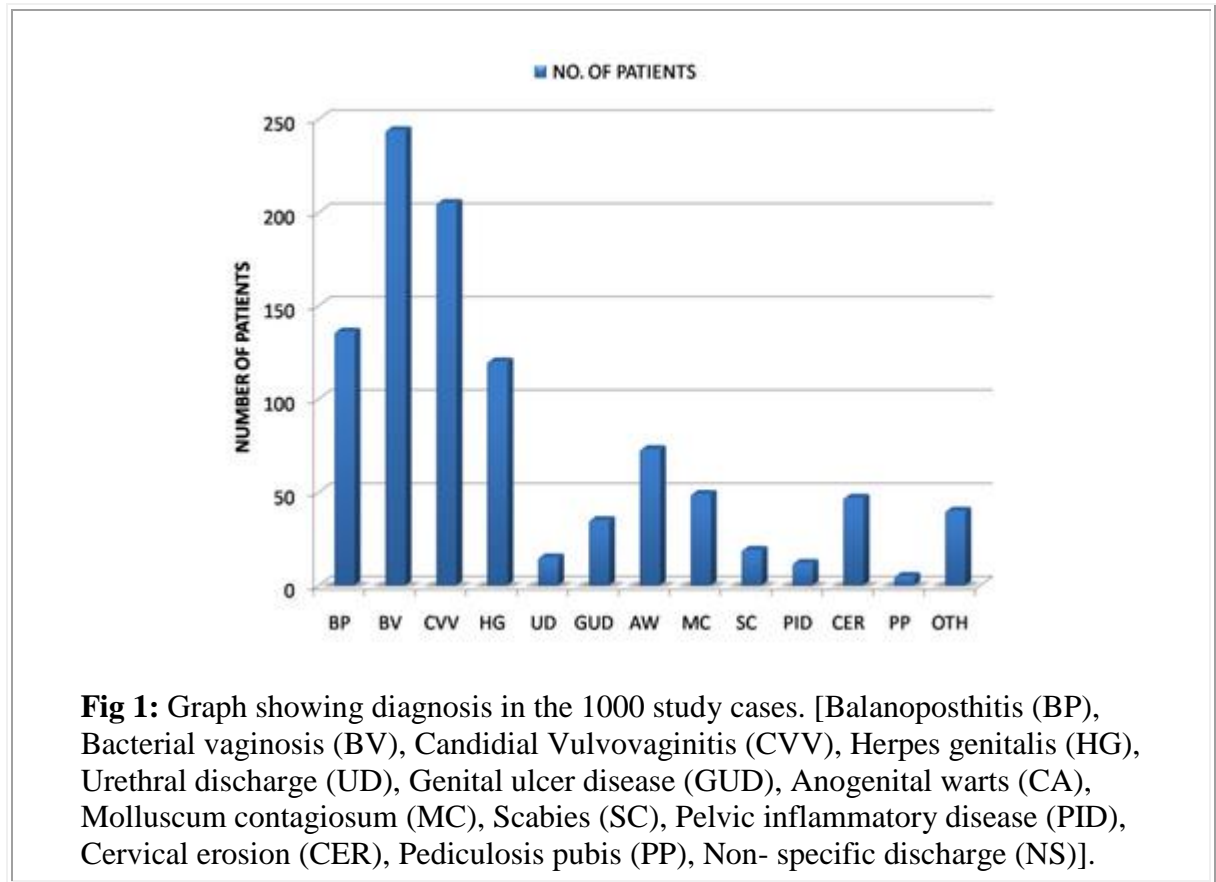
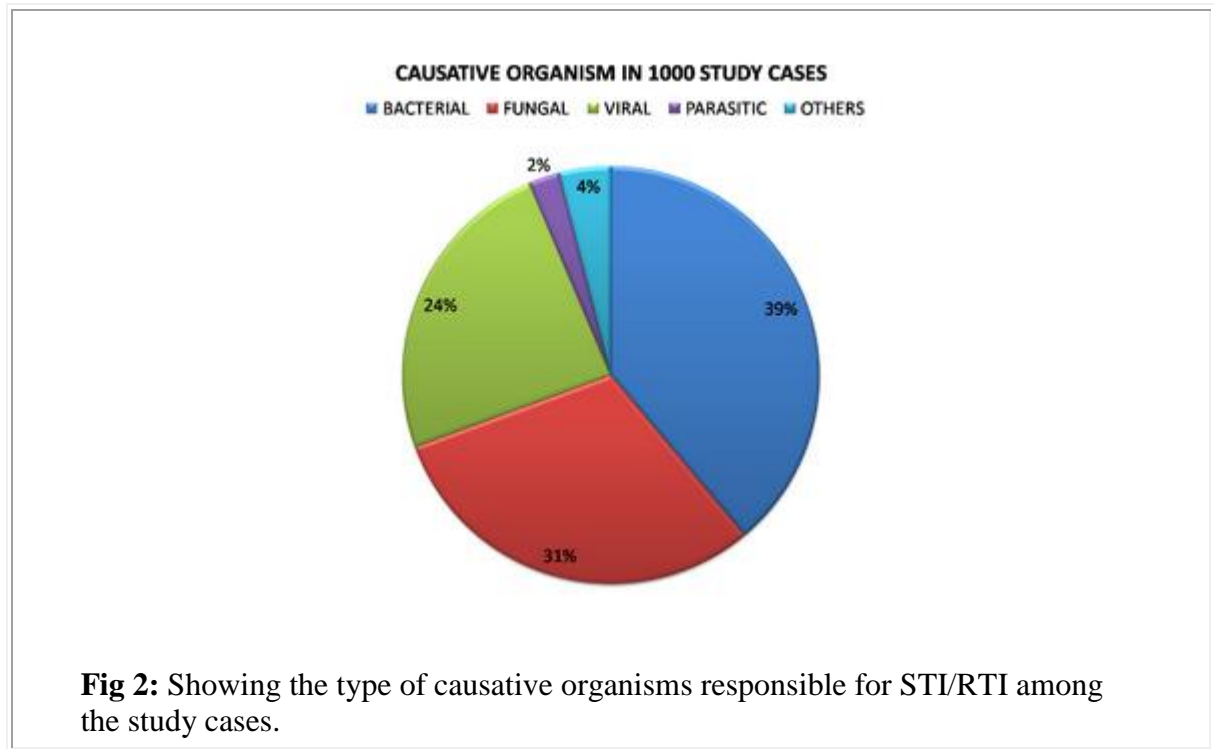


Figure 2 shows the type of organism responsible for the STI/RTI in studied cases.



In our study, 124 patients (12.4%) were found to be positive for HIV-1 antibodies while no patient was found to be positive for HIV-2 antibodies.

Discussion

India has a population of more than 1.25 billion, with half of them in the sexually active age group. [2] Among the 1000 studied cases, the majority were females i.e. 638 (63.8%) while males were 362 (36.2%) in number, with a female to male ratio of 1.7:1. This is because a significant number of patients included in the study (338) were from the RTI clinic of the Obstetrics and Gynaecology department, where only female patients are registered. In patients presenting to the STI clinic at the department of Dermatology, 362 (54.6%) were males and 300 (45.31%) were females, with a male to female ratio of 1.2:1.

The majority of cases were in the 16-30 years age group i.e. 464 cases (46.4%), followed by 31-45 years age group i.e. 426 cases (42.6%), which includes mostly sexually active individuals. Majority of cases belonged to Punjab i.e. 905 (90.5%). Non residents of Punjab were 95 (9.5%) who came to Punjab from various states of India to earn their daily living.

In our study, majority of patients i.e. 361 (36.1%) were educated up to matric (tenth standard) including 236 (37.0%) females and 125 males (34.5%), followed by 182 (18.2%) patients educated up to eighth standard and 181 (18.1%) patients having education up to 12th standard. One hundred and thirty six patients (13.6%) were educated up to primary level, while 74 patients (7.4%) were illiterate. Sixty patients (6%) were graduates while only 6

patients (0.6%) were post-graduates. Similar findings were reported by Choudhry et al who observed that the majority of the male patients attending STI clinics (53.12%) were educated up to middle school while 50% of the females were illiterate. [3] In another study by Choudhry et al, 67.64% patients were educated till middle school while 26.47% were illiterate. [4] Saikia et al reported that most patients in their study were from low and middle income group and more than half (53.8%) had formal education. [5] Setia et al also noted that most patients presenting to the STI clinic were from middle to lower socio-economic strata. [6]

In our study, out of 1000 patients, majority of patients i.e. 498 (49.8%) were housewives, followed by 154 (15.4%) patients who were daily wagers, 84 patients (8.4%) private employees, 81 patients (8.1%) farmers, and 73 patients (7.3%) were government employees.

In our study 904/1000 patients (90.4%) were married. Fifty-three males (14.6%) and 14 females (2.2%) were un-married. Twenty-four females (3.8%) were widows while 5 (0.8%) were divorcees. Similar findings were reported by Choudhry et al, who observed that 70% patients in their study were married. [3]

Setia et al reported that about 45% of the STI clinic attendees were married, and this increased to 67% two years later in the course of the study. Women attending the clinic were more likely to be married than men. [6] Saikia et al reported that 45.7% having STIs were unmarried. [5]

In our study, 263 patients (27.3%) i.e. 235 males (64.9%) and 28 females (4.4%) had history of pre or extra marital sexual contact. Similar to our study, Saikia et al reported among the married individuals in their study, 68% admitted to having extra marital sexual contact. [5] Setia et al reported that males are more likely to admit to having multiple sexual partners than females, due to the lower social standing of females in India. [6] Choudhry et al observed that 31.3% patients in their study (all males) had more than three sexual partners in the previous six months and 76.4% had contact with commercial sex workers. [3]

In our study, the majority of female patients had bacterial vaginosis i.e. 244 patients (38.2%), followed by 205 females (32.1%) having candidial vulvovaginitis. Forty-seven females (7.4%) had cervicitis, 29 (4.5%) had herpes genitalis, 26 (4.1%) had ano-genital warts, 21 (3.3%) had molluscum contagiosum while 12 females (1.9%) were diagnosed to have pelvic inflammatory disease. Among the male patients, balanoposthitis was most common, seen in 136 patients (37.6%), followed by herpes genitalis in 91 (25.1%) patients, anogenital warts in 47 males (13.0%), molluscum contagiosum in 28 (7.7%) patients.

Similar findings were reported by Choudhry et al, who observed that 33% males and 50% females presented with discharge. Also, 32% males and 27% females had genital ulcer. Other STIs seen were anogenital warts (17%), umblicated nodules (5%). Multiple STIs were seen in 4% of the patients. The majority of patients (28.7%) were diagnosed with Herpes genitalis (HSV-2), followed by syphilis (23.7%), warts (20%), gonorrhoea (19.3%) and Chlamydia (16.3%). HIV seropositivity was found in 10.3% of the patients. Other STIs seen were T.vaginalis, molluscum contagiosum and candidal balanoposthitis/vulvovaginitis. [4]

Saikia et al reported that out of 186 patients of STIs examined, candidial vulvovaginitis in females and candidial balanoposthitis in males were the most common STI (21.5%), followed by syphilis (17.2%), genital warts (15%), herpes genitalis (11.3%), non-gonococcal urethritis (10.8%), gonococcal urethritis (7%), pediculosis pubis (6.5%), chancroid (5.9%) and lymphogranuloma venereum (4.8%). HIV seropositivity was found to be 17.2 % in patients with STIs. [5]

The presence of one STI increases an individual's chance of acquiring another STI. The presence of multiple STIs is a risk factor for increased rate of transmission of HIV. The prevalence rate in Punjab is 0.32 % (Male- 0.37%; female- 0.26%). The positivity in various districts of Punjab like Amritsa (4.49%), Tarn taran (3.07%), Gurdaspur (2.38%) is high. [7] In our study, 124 patients (12.4%) were found to be positive for HIV-1 antibodies while no patient was found to be positive for HIV-2 antibodies.

Conclusion

Our study showed that the most common presenting complaint of the patients was discharge per vaginum, with candidial vulvovaginitis being the most common, followed by bacterial vaginosis. Viral STIs like herpes genitalis and condylomata acuminata are on the rise among STI/RTI clinic attendees.

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