

TO KNOW ABOUT SEXUALLY TRANSMITTED INFECTION & REPRODUCTIVE TRACT INFECTION IN HIV INFECTED WOMEN



Medical Science

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ABSTRACT

Objective

To know the prevalence of STI/RTI in HIV infected women irrespective of their complains and distribution of various RTI/STIs in these women.

Material and methods

This study was carried out in consecutively enrolled all HIV infected women coming to the gynecology Outpatient department in New Civil Hospital Surat, directly or referred from ART center irrespective of their complaints. An informed consent was taken from all subjects. All cases were subjected to detailed gynecological examination and two types of swabs, i.e., a vaginal swab and a cervical swab were taken for STD/RTIs evaluation. Blood samples were also taken for serology for detection of STI/RTIs. All the subjects were given treatment according to NACO's symptomatic approach for RTI/STIs.

Results

Mean age of these subjects was 35.47 years. Majority of the participants in the study group were in age group 31-40 years (44.44%). Most of the subjects at enrollment (72.2%) were in WHO stage I while least were in stage IV (1.9%). The most common symptom reported was vaginal discharge in 42 subjects (38.9%), followed by lower abdominal pain in 27 subjects (25%). Of all the patients, 76% were found to have STI/RTI clinically. Prevalence of overall STI/RTI was similar in both symptomatic and asymptomatic subjects.

CONCLUSION

It is seen that the prevalence of RTIs in HIV infected women is high enough to warrant routine gynecologic evaluation and RTI screening in these patients.

INTRODUCTION

HIV infection and other STIs (both ulcerative and nonulcerative) increase the Transmission of HIV by approximately three to five folds [27, 28]. Sexually transmitted infections (STIs) present a large burden of disease and debility. As per a recent STI prevalence study (2003), over 5% of adult population in the country suffer from STIs.[12]

It is established that the risk of acquiring HIV infection increases many fold in people with current or prior STI. A certain sexual behaviour puts people at the risk of acquiring STI and HIV infection. Once infected by sexually transmitted disease, a person has increased chances of acquiring and transmitting HIV.

In India, routine surveillance of these infections is not carried out and estimation of the total incidence/prevalence is quite difficult. Lack of laboratory diagnostic facilities, limited resources, poor recognition of reproductive tract infections (RTIs)/STIs by the medical professionals as a major public health problem, stigma and discrimination associated with STIs and poor attendance of STI patients, especially women, in sexually transmitted disease (STD) clinics, are some of the main reasons for lack of RTI/STI data. The objective of this study is to know the presence of RTI/STI in HIV infected women and to establish the importance of routine gynecological examination in all HIV infected women.

MATERIAL AND METHODS

This study was carried out in the gynecology Outpatient department in New Civil Hospital Surat.

The inclusion criteria's of the study are

- a) All HIV infected consenting women
- b) All sexually active HIV infected women
- c) All HIV infected women who are not in the menses

The exclusion criteria's of the study are

- a) All HIV infected non consenting women

- b) All HIV infected women
 - Who have cervical cancer
 - Who are in menstrual phase
 - Who are having cervical fibroid
 - Who are having prolapse uterus
 - And those who have taken treatment within last 3 months for STI/RTI.

The participants were interviewed. Informed consent was taken. A detailed history was taken followed by a thorough examination including per speculum and per vaginal examination. Samples were collected for cervical and vaginal discharge for gram staining, wet mount preparation and culture study. Blood samples were also drawn for serology.

RESULT

A total of 108 HIV infected subjects were enrolled in the study.

Sociodemographic profile of the study population

The characteristics of HIV infected women included in the study are shown in table 1. Maximum subjects were in age group of 21-30 (44.4%) and majority of the women were housewife (88.9%). Only 25% women were using contraceptive, out of which maximum women were using barrier contraceptive.

TABLE 1. SOCIO DEMOGRAPHIC CHARACTERISTICS OF THE SUBJECTS

Sociodemographic characteristic	N	Percentage %	
• <u>Age</u>	<20	0	0
	21-30	33	30.6%
	31-40	48	44.44
	41-50	27	25%

• Education	Illiterate	43	39.8
	Literate -1 ^o -2 ^o	52 11 02	48.1 10.2 1.9
	-Graduate		
• Occupation (wife)	Housewife	96	88.9
	Employed	12	11.1
• Occupation (Husband)	Unemployed	2	1.9
	Employed -Skilled	106 51	98.1 47.2
	-Unskilled	55	50.9
• M a r i t a l Status	Married	108	100
	Widowed	24	22.22
	Separated	3	2.8
	Divorced	2	1.9
	Remarried	3	2.8
• Age at marriage	<20 Yrs	76	70.4
	>20 Yrs	32	29.6
• Contraception	None	82	75.9
	O.C.P.	02	1.9
	Condoms	21	19.4
	I.U.D.	03	2.8
	Others	00	00
• Cycle details	Normal	82	75.9
	Abnormal -polymenorrhea	26	24.1
	-menorrhagia	2	1.9
	-Oligomenorrhea	17	15.7
	-Irregular menses	3 4	2.8 3.7
• Age at 1st intercourse	<20	55	50.93
	≥20	53	49.07
• Stage of Disease	I	78	72.2
	II	22	20.3
	III	6	5.6
	IV	2	1.9
• ART status	ON A.R.T.	78	72.2
	NOT ON A.R.T.	30	27.8
• Status of Partner	-Infected	81	75
	-Not infected	27	25
	-Not known	00	00
• CD₄ Count (at enrollment)	<200	11	10.1
	200-500	57	52.7
	>500	40	37.2
• Baseline CD₄ Levels	<200	19	17.6
	200-500	61	56.5
	>500	28	25.9

• Tuberculosis		04	3.7
• VD.R.L.		3	2.8
• HbsAG		7	6.48
• No of Partners	Single	103	95.37
	multiple	05	4.62

TABLE 2 COMPARISON OF REPRODUCTIVE TRACT INFECTION (RTI) AMONG SYMPTOMATIC AND ASYMPTOMATIC SUBJECTS

RTI/STI	PRESENT	ABSENT
SYMPTOMATIC (n=63)	46 (73%)	17 (27%)
ASYMPTOMATIC (n=45)	30 (66.6%)	15 (33.3%)
TOTAL (n=108)	76 (70.3%)	32 (29.7%)

Table 2 shows the percentage of RTI/STI in symptomatic and asymptomatic subjects. Almost equal numbers of subjects in both the groups were having RTI/STI irrespective of their complaints, signifying the importance of routine evaluation of all HIV infected subjects for RTI/STI.

TABLE 3 COMPARISON OF INDIVIDUAL RTI/STI AMONG SYMPTOMATIC AND ASYMPTOMATIC SUBJECTS

	SYMPTOMATIC (n=63)	ASYMPTOMATIC (n=45)	P value
CANDIDIASIS (n=23) 21.3%	16 (69.56)	7 (30.43)	0.2
BACTERIAL VAGINOSIS (n=37) 34.2 %	16 (43.24)	21 (56.76)	0.02
TRICHOMONAS VAGINALIS (n=10) 9.2%	7 (70)	3 (30)	0.4
SYPHILLIS (n=8) 6.4%	6 (75)	2 (25)	0.1
H E R P E S SIMPLEX VIRUS (n=14) 12.9%	12 (85.71)	2 (14.28)	0.02
PELVIC INFLAMMATORY DISEASE (n=11) 10.2%	9 (81.81)	2 (18.19)	0.1
CERVICITIS (N=22) 20.3%	9 (40.99)	13(59.1)	0.04

Table 3 shows the distribution of various RTI/STI in asymptomatic and symptomatic HIV-seropositive subjects. The most

common infection among both symptomatic and asymptomatic subjects was bacterial vaginosis (34.2%) which was seen more in asymptomatic subjects as compared to symptomatic subjects. In the current study 30.2% symptomatic subjects had BV, while 40% asymptomatic subjects were harboring BV. The next most common infection after BV was found to be vulvovaginal candidiasis.

The table shows that there are not wide variations in prevalence of BV, candida and cervicitis in symptomatic and asymptomatic HIV infected subjects. Hence it's recommended that it is missed opportunity for the patient attending ART Centre for routine visit, must be screened for STI/RTI.

Acc to one similar study conducted in Delhi^[95] BV was common (50%) followed by YV (45%), mixed infection, i.e., both BV and YV (22.5%) and *Chlamydia trachomatis* (2.5%) among the 40 HIV-seropositive subjects studied. Most of the other studies have also reported similar findings. Watts *et al*^[101] reported that at baseline visit, BV was present in 42.8% of HIV-infected subjects and YV in 10% followed by *T. vaginalis* in 6.1%. Another study^[102] in the United States found that the prevalence of BV among HIV-positive subjects was 35% followed by trichomoniasis (12%), *C. trachomatis* (4%), and YV (3%).

TABLE 4 RELATIONSHIP BETWEEN RTI/STI AND VARIOUS RISK FACOTRS

	EDUCATION		CONTRACEPTION		CD4 COUNTS		STAGE		ART		DURA	
	LITERATE n=43	LITERATE n=65	SAME n=28	NO OR OTHER n=37	<200 n=11	>200 n=57	I B n=100	II V n=88	ON n=28	NOT n=38	<6 n=25	>6 n=33
RTI/STI	+	+	+	+	+	+	+	+	+	+	+	+
	33	31	15	18	8	81	79	61	58	26	13	23
P VALUE	.75		.75		0.0001		.63		.11		.15	

Table 4 shows relationship between various risk factors and RTI/STI. There was no significant association was found literacy, contraception, WHO staging, ART status and duration of ART except for CD4 count, which had significant association with RTI/STI.

CONCLUSION

In the present study, the prevalence of RTIs in HIV infected women is high enough to warrant routine gynecologic evaluation and RTI screening in these patients. RTI/STI is being increasingly recognized as serious public health problem. Their consequences are far more devastating and wide spread among women. It is the burden of asymptomatic disease that is responsible for the persistence and the spread of STI/RTI in community.

Also in the present study, prevalence of infection was almost similar in symptomatic and asymptomatic subjects, pointing towards need of routine examination of all HIV infected women.