

Prevalence of High Risk Behaviour amongst RTI Patients - A Study

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ABSTRACT

Introduction: RTIs though perceived as a neglected problem affecting health and social well-being of women, is not so uncommon. Untreated infections can lead to pelvic inflammatory diseases, ectopic pregnancy, infertility, cervical cancer, foetal loss or infant health complications, with a threefold to fivefold increase in risk of HIV acquisition and transmission. Rise in prevalence of RTIs goes hand in hand with high risk behaviour and further blown up by inapt choice of contraception. Study aimed to estimate prevalence of RTIs and explore high risk behaviour and choice of methods of contraception amongst RTI patients.

Material and methods: 500 RTI patients were studied at tertiary care centre, in a cross-sectional observational study, to estimate prevalence of RTIs, their high risk behaviour and choice of methods of contraception. Ethical approval was obtained from the Institutional Ethics Committee and informed written consent was taken from all participants in the language best known to them.

Results: High risk sexual behaviour was reported more in husbands 116 (23.20%) as compared to wives 42 (8.40%). Majority 51 (10.20%) were found to be positive for hepatitis C followed by 34 (6.80%) HIV +ve and 31 (06.20%) positive for hepatitis B. Only 7 (1.40%) patients were positive for syphilis. 232 (56.31%) were utilizing one of the contraceptive methods.

Conclusion: High risk behaviour reported points to the need for harm reduction strategies. Emphasis to be laid on usage of appropriate type of contraceptive method prioritizing prevention of transmission of infections.

Keywords: High Risk Behaviour, HIV, Hepatitis B & C, RTIs.

INTRODUCTION

The annual incidence of RTI and sexually transmitted infection (STI) in India is estimated at 40 million a year (approximately 5%).¹ In developing countries inadequate diet, repeated pregnancies, excessive workload along with poor environmental conditions have marring effect on women's health. Reproductive health problems effect health of women and of their children.² It is observed that in developing countries a third of the share of disease burden amongst 15-44 aged women is associated with pregnancy, abortion, childbirth and reproductive tract infections. Anaemia in women leads to reduction in her capacity to resist to infections and decreases tolerance of blood loss thus making prone to morbidity and mortality.³ These RTIs if detected and treated earlier, complications can be prevented and the severity of long term sequel minimized.⁴ As RTIs remain undiagnosed and untreated resulting in high number of asymptomatic cases adversely affecting the treatment of these infections.⁵

Untreated infections can lead to pelvic inflammatory diseases, ectopic pregnancy, infertility, cervical cancer, foetal loss or infant health complications, with a threefold to fivefold increase in risk of HIV acquisition and transmission.⁶ Study aimed to estimate prevalence of RTIs and explore high risk behaviour and choice of methods of contraception amongst RTI patients.

MATERIAL AND METHODS

Patients reporting with complaints pertaining to RTIs in the OPD of gynaecology department of this tertiary care hospital were taken under the umbrella of this project to investigate their high risk behaviour, contraceptive methods used apart from clinical and laboratory investigations required in each case. Sample size was calculated by using the formula, $n = 4pq/l^2$. As prevalence reported by different studies varies, we took it as 50%. Non response error was taken as 10%. The sample size was derived at 440. A somewhat larger sample than the calculated figure of 440 i.e. 500 subjects were studied. Ethical approval was obtained from the Institutional Ethics Committee and informed written consent was taken from all participants. Information regarding socio-demographic profile, sexual behavior and personal history was recorded as per Performa in the presence of counselor. Blood samples were collected for screening of Syphilis, HIV, Hepatitis B Surface Antigen (HBsAg) and Hepatitis C Virus (HCV). Hemoglobin estimation and urine microscopic examination of all RTI patients was done.

STATISTICAL ANALYSIS

Data was collected, compiled and analyzed statistically on Microsoft excel sheet. Descriptive statistics were used for the interpretation of data.

RESULTS

Male domination was evident and statistically proven with p value of 0.01, 116 husbands (23.20%) with high risk behavior compared to 42 wives (8.40%) amongst

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the RTI patients (table-1). Majority of the patients 412 (82.40%) had awareness about contraception methods and among those having awareness, only 232 (56.31%) were utilizing contraception but 180 (43.69%) were not using any method of contraception. Among those utilizing temporary contraception methods most of the patients 163

High Risk Behaviour	116	23.38%
Type of High Risk Group		
Multiple Sexual Partners	29	5.84%
IDU	3	0.60%
Drivers	14	2.82%
Migrants	5	1.01%
Under the influence of Alcohol	41	8.27%
Drug Abuse	24	4.84%

Table-1: Distribution of RTI patients in relation to high risk sexual behaviour among husbands (n=496)

High Risk Behaviour in Patients (Nature of Sexual Activity)	No. of RTI Patients	%age
Oral Sex	42	8.46%
Only Oral Sex	27	5.44%
Oral and Anal Sex	15	3.02%

Table-2: Distribution of RTI patients in relation to high risk sexual behaviour in married patients (n=496)

Hemoglobin	No. of RTI Patients (n=500)	%age
No anemia (≥ 12 gm%)	130	26.00%
Mild (10-11.9 gm%)	287	57.40%
Moderate (7-9.9 gm%)	61	12.20%
Severe (≤ 7 gm%)	22	04.40%
Total	500	100%

Table-3: Distribution of patients in relation to haemoglobin status (as per who criteria) (n=500)

		No. of RTI Patients	%age
Patients with Seropositive Profile (n=123) (24.6%)	HIV	34	06.80%
	Hepatitis B	31	06.20%
	Hepatitis C	51	10.20%
	Syphilis	7	01.40%
	Total	123	24.60%

Table-4: Distribution of reproductive tract infections HIV, Hepatitis B, Hepatitis C and Syphilis among patients (n=500)

	Hepatitis B	Hepatitis C	HIV	Syphilis
Bogaerts et al ¹¹ (2001)	7.6%	4.9%		3%
Gibney et al ¹⁰ (2001)	3.6%	1.6%	None	5.7%
Jindal N ¹⁵ (2008)	3.7%	2.6%		4.3%
Balamurugan and Bendigeri ⁶ (2012)	-	-	-	1.5%
Rajesh and Sudha ⁵ (2013)	17.7%	-	6.2%	25.3%
Present study	6.2%	10.2%	6.8%	1.4%

Table-5: Published data VIS-À-VIS present study regarding prevalence of various RTI S

(39.56%) were using barrier contraception (male condom), 52 (12.62%) were IUCD users and only 18 (4.36%) were oral combined pill users. Table-2 shows distribution of RTI patients in relation to high risk sexual behaviour in married patients. Table-3 shows distribution of patients in relation to haemoglobin status (as per who criteria) (n=500). Most of the patients 475 (95.00%) had no abnormality detected on urine complete examination. Only 25 (5.00%) patients had abnormal results of urine complete examination i.e., more than 4 pus cells out of which 11 had traces of albumin in urine.

DISCUSSION

Women are found to be more vulnerable than men to STDs, in both biological and cultural and socioeconomic terms. We found 41 men (8.27%) indulged in high risk sexual activities under the influence of alcohol, 24(4.84%) were having drug abuse, 3 (0.6%) were IDU, 14 (2.82%) were drivers. Senn et al⁷ conducted study the intersection of violence, substance use, and STDs in Urban STD Clinics in Huntington on 1557 patients attending STD clinics and found 56% had Binge drinking, 46% showed marijuana use, 38% had intimate partner violence and 70% multiple sex partners. While 23.3% were Truck/Taxi drivers in rural area of Varanasi (UP) in a study by Singh et al.⁸ Amin et al⁹ at Aligarh, UP found 48.9% had multiple sexual partners. Gibney et al¹⁰ conducted study on Bangladeshi women living adjacent to truck stand. Out of 261 RTI patients, about 14% had truck driver or truck helper as primary partners. In a study 8.3% females had multiple sexual partners Bogaerts et al.¹¹ While 34.3% had multiple sexual partners and 13.4% showed other high risk sexual behaviour in form of using sex toys in China Wang et al.¹² Present study is comparable to the other studies as regards high risk sexual behaviour in RTI patients. The results observed in present study differs from other studies, it might be due to reluctant behaviour on part of RTI patients to come forward regarding high risk sexual behaviour of their spouses and different cultural settings.

Present study showed 56.55% were utilizing and 43.44% not utilizing any contraception. Results from other studies; 82.7% of these did not utilize any form of temporary contraception (Elahee et al¹³). In some of the studies, groups were mainly Muslim females whose religious advice was against contraception. Present study showed 39.56% of RTI/STI patients using male condom followed by 12.62% IUCD and 4.36% OC Pill users. Bogaerts et al¹¹ conducted a study in married women in Dhaka, Bangladesh. Among 245 RTI

patients, 10% used OC Pills, 9% used Male condom and 3% were IUCD users. Balamurugan and Bendigeri⁶ conducted a study in Hubli, Karnataka. They studied 656 women of reproductive age group. Among them 9.9% were IUCD users, 3.96% used OC Pills and 2.89% used Male condom. Present study showed higher utilization (56.55%) of temporary methods of contraception. This difference could be due to our hospital being a tertiary care centre and catering to different community also a higher number (39.56%) of RTI/STI patients using male condom. Lower number of male condom users in other studies reflects lack of awareness regarding protective effects of barrier contraception.

There were wide variations in prevalence of different STDs in different studies (Table-5).

Present study showed majority of females in reproductive age group were anaemic among them 57% had moderate anaemia, 21.8% were mildly anaemic and 3.6% had severe anaemia, only 17.6% were not anaemic. All studies revealed anaemia in reproductive age group – a major health problem. Maiti et al¹⁴ (2013) conducted study in Kolkata, found 70.1% were women were anaemic.

CONCLUSION

High risk behaviour reported, points to the need for harm reduction strategies. Emphasis to be laid on usage of appropriate type of contraceptive method prioritizing prevention of transmission of infections. Knowledge of contraception de novo is not enough unless implementation is effected on "protective" contraceptive method to achieve reduction in RTIs. There is an imminent need to address high risk sexual behaviour amongst them.

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