



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2015; 1(10): 621-624
www.allresearchjournal.com
Received: 27-07-2015
Accepted: 28-08-2015

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A retrospective study of sexually transmitted infections at tertiary care centre

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Abstract

Background: Sexually Transmitted Infections (STI)s are one of the disastrous events of health causing huge psychological & economic morbidity in young & sexually active adults. Population explosion, migration from rural to urban areas, commercial sex & lack of awareness has all lead to spread of STI's in community. The STI programme, throughout the last year, a study which has been undertaken to know the increasing incidence of sexually transmitted infection.

Objectives: Prevalence of sexually transmitted infections during the year; & reproductive health services sexual health communication delivered at tertiary care center

Selection criteria: Participants are all ages from adolescence attending the OP department at Government Maternity Hospital, (GMH) Tirupati.

Material and methods: Case records of 2578 patients who attended OP department of GMH, Tirupati during the year 2014 to Feb 2015 were analyzed in retrospective way. Cases have been diagnosed based on the clinical presentation and investigations available in the hospital. Then cases were subjected to cervical cytology, Venereal disease research laboratory (VDRL), The human immunodeficiency virus (HIV) and enzyme-linked immunosorbent assay (ELISA) according to their complaints and giemsa staining, wet mount study for vaginal discharge and pap smear screening for Ca cervix.

Results: A total of 2739 patient records were studied, of which 1806 patients had sexually transmitted infections and 286 were of non STI's and the patients who presented with vaginal cervical discharge were of 1399, patients with lower abdomen pain were 1256, Genital Ulcer Disease (GUD) herpetic were 6 and Genital Ulcer Disease-Non Herpetic (GUD-NH) were 2. Follow-up of only 229 patients was possible. Age group of 20-29 yrs. was the maximum sufferers and unsafe sexual activity was the potential exposure and majority of the patients was not consistent in using condoms.

Conclusion: Vaginal discharge is a common gynecological complaint and STI's are important cause of vaginal discharge leading to significant proportion of female morbidity. Genital viral infections constitute the bulk of STI's. Majority of patients sufferers from age group 20-29 years and the sufferers were enquired about their partners and they were also treated or referred RUIA General Hospital for further treatment.

Keywords: Prevalence, Social stigma, sexually transmitted infections, suraksha clinics, RTI/STI Clinics, out patients, National AIDS Control Programme.

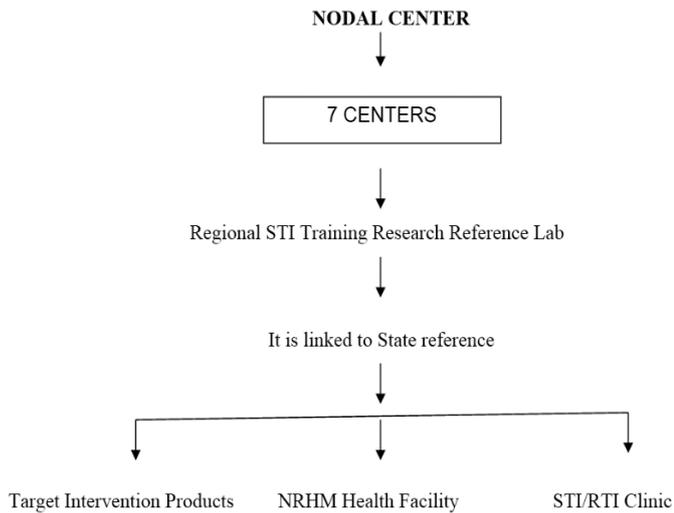
1. Introduction

Sexually transmitted infections are infections that primarily spread through person to person by sexual contact. STI'S are a major public problem in both developing and developed countries but prevalence rates are more in developing countries where STD treatment is less accessible [1]. This group of infections and their complications are one of the top 5 reasons that adult seek health care. A community based STI prevalence study conducted in India in 2003 showed a 6% prevalence of STI/RTI among adult population [2].

STI/RTI's prevention control and surveillance are important components of National AIDS Control Programme. Technical guidelines for STI/RTI management advocate syndromic management at all facilities under minimum laboratory test. 5 regional STI training research & reference laboratories were established in early 80's under National STI Control Programme and in 2009 these were increased to 7 centers for providing evidence based inputs to STI/RTI control programme [2]. They conduct laboratory test for viral, fungal, bacterial, parasitic diseases for cases not responding to syndromic management (or) treatment failure

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938 designated RTI/STI Clinics are presented in India [2].

There are 30 different sexually transmitted bacteria, virus & parasites and these proportionately affect women & adolescent girls. Females also there much more severe morbidity of sexually transmitted infections than males due to A, Social stigma accounting for non detection of cases. B. Non disclosing the source of contact, C. Dropping in half way of treatment.

D. Due to increased surface area of vagina retain ability is more.

STI's are preventable and many of them are curable. As the adage goes prevention is better than cure. WHO suggest that improving awareness and knowledge of STI's should be a part of all sexual education and the consequence of STI's in female include

1. Pelvic inflammatory disease, 2. Infertility, 3. Ectopic pregnancy, 4. Post abortal

5. Purperal sepsis, 6. Cervical cancer, 7. Chronic physical pain, 8. Emotional distress [3, 4, 5]

9. Intra uterine death, 10. Abnormal vascular supply, 11. Intra uterine growth retardation 12. Preterm, 13. Second trimester abortions

All pregnant women are to be tested for VDRL to prevent sexually transmitted infections before 12th week of pregnancy to prevent congenital syphilis to new born and 60 % of HIV in VDRL positive patient and 6 % of HIV in VDRL negative patients.

WHO estimates that approximately 340 million new cases of main curable STI's that is gonorrhea, Chlamydia infections, syphilis and trichomoniasis occur every year and approximately 75-85 persons occur in developing countries [6]. Syndromic case management and appropriate lab test is the corner stone of STI's/RTI management.

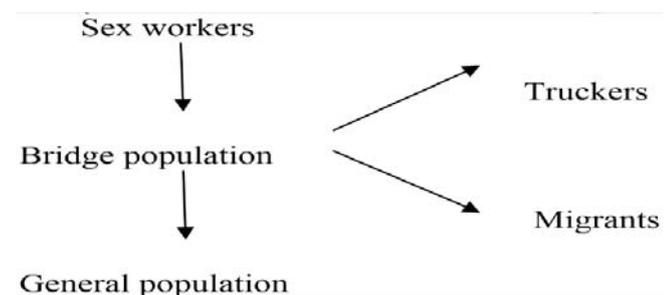
STI's differ from other disease in the following aspect 1. Their incubation periods are highly variable. 2. Genetic structure of most sexually transmitted pathogens is so diverse that researchers have been unable to design a vaccine against them. 3. These diseases are primarily spread by a behavior that is inherently resistant to a change because it is highly motivates and varies between social and ethnic group. In developing countries of India there have been study increasing rates of STI's due to 1. Migration from rural to urban area leading to unbalanced sex ratio. 2. Loss of traditional values 3. Increasing sexually awareness. An estimated 67% of population especially long distance truckers carrying horticultural produce migrant labour and tourist are prone to risk behavior [7]. STI control is defined as public health outcome measured as reduced incidence and prevalence [8].

Suraksha Clinic: All cases, pregnant, sexually transmitted infections will be tested in *suraksha clinics*. Recurrent STI's patients with positive HIV are referred to higher center.

Level of carve	Service providence	Service provision modalities	Service package
STI clinics with targeted intervention for High Risk groups	Medical officer Counsellors Staff nurse Lab technician where ever applicable	Specific STI/RTI clinic for HRG's Referral to Government & private STI/RTI	Syndromic diagnosis of STI/RTI & Treatment Periodic clinical STI/RTI screening presumptive treatment & semiannual syphilis screening, Intensive counseling, BCC through outreach workers and peers Condom promotion Partner treatment Referral to ICTC

Suraksha clinic works under guidelines of NRHM, 2. RCH II programme implementation plan, 3 NACP III strategy & implementation plan. Suraksha clinic divides the population attending STD clinic in to A) Non risk groups, B) High risk groups 1. Core high risk groups are 1. Multiple sexual partners, 2. Female sex workers, 3. Men who have sex with men and transgender, 4. Sharing of injections

Bridge Population



Counselor in suraksha clinic by using audiovisual-aids explains the symptoms, modes of transmission of sexual transmitted infection and also supply of condoms, counsel the patient on disease symptoms, sending the partner for treatment of patient and partner. In our hospital, suraksha clinic has been working since 2012, and these suraksha clinic have been useful in the detection of HIV population from general population due to suraksha clinics, complications of STD's have been prevented. All the records are maintained by counselor and sent to nodal officer.

Materials and Methodology: The present study includes women aged 15-65 years conducted in gynecology of GMH, Tirupati, over a period of 1 year from February 2014 to February 2015. All women were interviewed in depth about the menstrual, obstetric history and sexual history. Women who are complaining of vaginal discharge a provisional diagnosis was made on history, colour, consistency, quantity, and odour of discharge. Each patient was subjected to per

speculum examination to know whether the discharge is from cervix or vagina. They were labeled as vaginal discharge or cervicitis for the purpose of syndromic management approach. [9] [10] [11]. Thorough systemic and physical examinations relevant lab investigations like 1. VDRL-and plasma regain test for syphilis. 2. KOH mounts for Candida, 3) Pap smear for dysplastic cells-carcinoma cervix. 4) Gram's stain bacterial vaginosis. Then the subjects are treated according to their symptoms and according to their lab investigations. There are

seven pre-packed colour coded STI/RTI drug kits under National Aids Control Programme (NACP) for syndromic management of STI/RTI. These drugs kits have been developed on the basis of national guidelines on prevention, management and control of STI's including of STI's Ministry of health and family welfare. These colour coded STI/RTI service facilities including the STI clinics under target intervention projects.

Kit no.	syndrome	colour	Contents
Kit 1	Urethral discharge(UD), Cervicitis(CD) Ano-rectal discharge(ARD) Painful Scrotal swelling(PSS) Presumptive Treatment(PT)	Grey	Tab. Azithromycin 1g(1) and Tab. Cefixime 400mg(1)
Kit 2	Vaginitis(VD)	Green	Tab. Secnidazole 2g (1) and Tab. Fluconazole 150 mg(1)
Kit 3	Genital Ulcer Disease-Non Herpetic(GUD-NH)	White	Inj. Benzathine penicillin 2.4MU(1) and Tab. Azithromycin 1g (1) and Disposable syringe 10 ml with 21 gauge needle (1) and sterile water 10ml (1)
Kit 4	Genital Ulcer Disease-Non Herpetic (GUD-NH)-for patients allergic to penicillin	Blue	Tab. Doxycycline 100mg (30) and Tab. Azithromycin 1 g (1)
Kit 5	Genital Ulcer Disease-Herpetic(GUD-H)	Red	Tab. Acyclovir 400mg (21)
Kit 6	Lower Abdominal Pain	Yellow	Tab.Cefixime400 mg(1) and Tab. Metronidazole 400 mg(28) and Cap. Doxycycline 100 mg(28)
Kit 7	Inguinal Bubo(IB)	Black	Tab. Doxycycline 100 mg(42) and Tab. Azithromycin 1 g(1)

These subjects were also enquired about their partners that are for any ulcers, discharge, symptoms, and accordingly their partners are either treated by kit method or they are referred to Ruiya venerology department. Privacy was ensured while taking the interview and sample collection.

Results: The patients attending to the Gynec out patients(OP) are 7359, out of which 2839 between age of 15-65 attending the OP in the period of 1 year, February 2013- February 2014 of which 2703 have been diagnosed as having STI of which 1806 (63.61%) have vagino- cervical discharge, 1039 (36.40%) had lower abdominal pain and only one was diagnosed to be genitor urethral-discharge-non-herpetic, and 6 of them having genito-urethral discharge-herpetic, and 32 of them having both STI with HIV and 10 of them having HIV. Partners managed with the information's collected from the female clients were 817. A total of 1985 were provided with the condoms at the suraksha clinic.

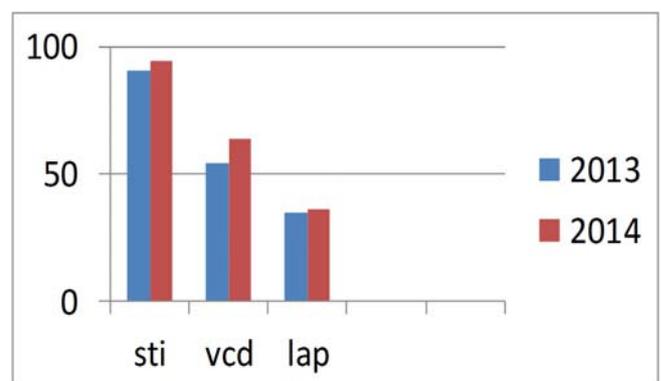
Diagnosis of Sti's In Female

Diagnosis Of Sti's	Patients	Percentage
Vagino cervical discharge	1806	63.61%
Lower abdominal pain	1039	36.4%
Gud-herpetic	1	0.036%
Gud-non-herpetic	6	0.22%
HIV with STI 'S	32	1.18%
HIV	10	0.36%
Comparison of STI's of 2013-2014		
DIAGNOSIS	2013	2014
Vagino-cervical discharge	54.25%	63.6%
Lower abdominal pain	35.5%	36.5%
STI'S	90.6%	94.6%

incidence of vaginal discharge was noted in urban area when compared to rural and urban area. in most of the delivery settings the syndromic approaches whether standard or enhanced have been shown to be effective in relieving the symptoms and in prevention of obstetric and gynecological complications.

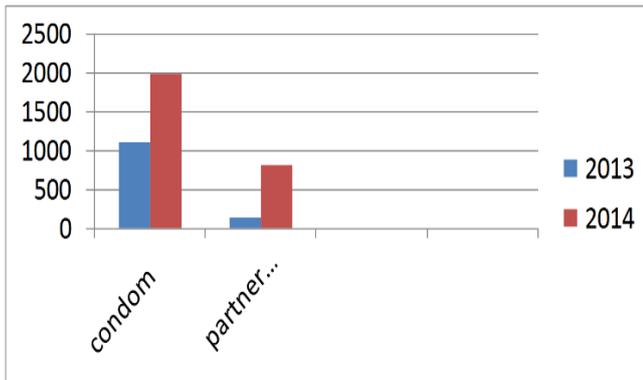
In our present study female attended attending the suraksha clinic has increased indicating that females who were ignoring their reproductive health has been reversed at least in this period, and due to increased female literacy rate clubbing of STI's and media awareness programme. No case of Chlamydia was detected in our present study which may be because of very non-specific and insensitive method employed for its detection that is giemsa to detect the inclusion bodies as facilities for immune fluorescent studies were not available in our institution.

In this study, only symptomatic females attending the gynecology OP were only included. There would more symptomatic females the hospital. Thus our study is not a representative of the whole population.



Comparison of STI, lower abdominal pain and vaginal discharges in 2013-2014

Discussion: In my study, vaginal discharge is the most common symptom of STI'S. Though vaginitis is not a serious condition it has repercussion on woman' life. maximum



Partner management and condom distribution and use are shown.

Conclusion: Our study showed that the most common presenting complaint of patients was discharge per vagina. Presence of STI'S indicating high risk sexual behavior for HIV and carcinoma cervix. Early diagnosis and management of STI'S at an early stage will go a long way in improving women's health, economy and society. In our study it has been observed that due to limited supply of drugs and due to paucity of funds services couldn't be provided

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