# **Original Research Article**

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# To assess the prevalence of STI/RTI using syndromic case management in the urban health centre area of greater Visakhapatnam municipal corporation, Andhra Pradesh

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#### **ABSTRACT**

**Background:** Sexually transmitted diseases remain a major public health problem in many parts of the world. 340 million new cases of curable STIS occur every year. 75 to 85% are seen in developing countries and rank second as the cause of healthy life lost among women of reproductive age group, after maternal morbidity and mortality.

**Methods:** The study was conducted at Rama Murthy Pantulu Peta in the field area of urban health centre of greater Visakhapatnam Municipal Corporation, Visakhapatnam during September 2015 to October 2016. The study design was a community based descriptive study. Based on the prevalence of STI as stated by National AIDS Control Organization, a sample of 1541 is calculated.

**Results:** The overall prevalence of RTI/STI in our study is 18.88%. The prevalence of symptoms suggestive of STI/RTI among female respondents is found to be 27.97%. Majority of females complained of vaginal discharge (26.68%), vulvas itching (10%), lower abdominal pain (6.34%) followed by abnormal vaginal bleeding (5.91%). The prevalence of symptoms suggestive of RTI/STI is found to be 9.75% among male respondents and majority complained of Urethral Discharge (8.4%) followed by inguinal/scrotal swelling (5.2%).

**Conclusions:** The prevalence of Reproductive tract infections is more in females when compared to males in our study. Health education regarding the sexual and personal hygiene should be targeted to both males and females so as to decrease the prevalence of Sexual transmitted diseases in the urban health centre areas of Visakhapatnam.

**Keywords:** STI, RTI, Syndromic approach, Visakhapatnam

# **INTRODUCTION**

Sexually transmitted diseases remain a major public health problem in many parts of the world. 340 million new cases of curable STIS occur every year. 75 to 85% are seen in developing countries and rank second as the cause of healthy life lost among women of reproductive age group, after maternal morbidity and mortality.<sup>1</sup>

In India during 2001-2011, 30 million STI/RTI's were reported contributing to major country's disease burden

and has a high incidence of STD's with an estimated incidence rate of 40 million new cases per year.<sup>2</sup> Any given point of time 40% of women has RTI/STI but only 1% completes the treatment of both partners.<sup>3</sup>

The "syndromic approach" is a simple practical tool to improve diagnosis and treatment. Under the syndromic approach, the diagnosis of STI is based on identification of consistent group of symptoms and easily recognized signs and provision of effective treatment that will deal with majority of organisms responsible for producing each syndrome.<sup>4</sup>

Present study was conducted using syndromic approach for identification of STIs/RTIs at the Urban Health Centre of Greater Visakhapatnam Municipal Corporation.

## **METHODS**

# Study design

A community based descriptive study.

# Study population

The study included both men and women between age group of 15-49 years who are residing in the area attached to Urban Health Centre of Rama Murthy pantulu peta.

# Study setting

The field area of Rama Murthy Pantulu Peta is distributed among wards 43, 44, 45, 46. The study population was selected from ward No. 43 and 44 which were selected by random sampling and later on house to house survey was done till the sample size is met.

#### Sample size

According to National AIDS Control Organization study the estimation of STI/RTI prevalence is 11%. Where p = prevalence of STI = 11%, allowable error is 15% of p.

 $N=4PQ/E^2$ 

(i.e.  $4\times11\times89/$  (1.65)<sup>2</sup> =1529). The required sample size was estimated to be 1529.

But we have administered pretested questionnaires to 1541 respondents to cover the entire 43 and 44 wards.

# Study duration

The present study was carried out from September 2015 to October 2016.

## Statistical tool

Data obtained was entered into the excel spread sheet (2013) and future analysis was done. Nominal data is expressed in percentages and continuous data is expressed in means and standard deviations.

### **RESULTS**

A total of 1541 respondents from 800 households are covered under the study of which 769 (49.9%) are males and 772 (50.1%) are females.

Mean age of the male study population is  $33.06\pm6.82$  years. Mean age of the Female Population is  $29.26\pm6.4$  years.

Table 1: Gender wise prevalence of RTI/STI.

(	Gender	Symptomatic N (%)	Asymptomatic N (%)	Total n (%)
	Male	75 (4.8)	694 (45.1)	769 (49.9)
]	Female	216 (14.08)	556 (36.02)	772 (50.1)
,	Total	291 (18.88)	1250 (81.12)	1541 (100)

Majority of males are married at the age group of between 20-24 years (56.79%) followed by 37.12% are married at the age group of 25-29 years whereas in females majority are married at the age group of between 15-19 (53.95%) followed by 44.15% are married at the age group of 20-24 years (Table 1).

Table 2: Symptom wise distribution of female study population (n=772).

Symptoms	No. of clients N (%)
Vaginal discharge	206 (26.68)
Vulval itching	77 (10)
Abnormal/ heavy bleeding	46 (5.91)
Painful coitus	16 (2.07)
Lower abdominal pain	49 (6.34)
Blister/ ulcer or genital ulcer	5 (0.65)
Burning micturition	61 (8)
Warts on genital/ anus	4 (0.5)

Analysis of marital status among women as a determinant for RTI/STI has not shown any significant difference. The percentage of unmarried and widowers with symptoms of STI/RTI is 4.63% (Table 2).

Table 3: Symptom wise distribution of male respondants (n=769).

Symptoms	N (%)
Urethral discharge	65 (8.45)
Burning micturition /frequent urination	34 (4.21)
Inguinal / scrotal swelling	40 (5.20)
Blister/ genital ulcer	9 (1.17)
Genital itching	2 (0.26)
Warts in genital /anus	9 (1.17)

556 Women did not report any symptoms related to RTI/STI. Majority of them complained of Vaginal Discharge (26.68%), followed by vulval itching (10%), followed by lower abdominal pain (6.34%) followed by abnormal vaginal bleeding (5.91%) (Table 3).

Among 75 men who reported symptoms of STI/RTI, majority complained of Urethral Discharge (8.4%) followed by inguinal / scrotal swelling 5.2% (Table 4).

Table 4: Syndrome wise prevalence of STIS/RTIS among study population.

Symptoms	n (%)
Vaginal discharge	206 (13.37)
Urethral discharge	65 (4.22)
Genital ulcers	14 (0.91)
Inguinal bubo	15 (0.97)
Lower abdominal pain	49 (3.18)
Scrotal swelling	25 (1.62)
Genital itching	79 (5.13)

In our study prevalence of vaginal discharge is 13.37%, urethral discharge is 4.22% followed by lower abdominal pain 3.18%. Combination of symptoms among females showed that vaginal discharge with low back ache were 34 followed by vaginal discharge with low back ache with lower abdominal pain were 27 and female patients with burning micturition with low back ache and lower abdominal pain were 25. Painful coitus was noted in 16 respondents.

#### **DISCUSSION**

A study conducted in the rural community of West Bengal by Samantha et al showed a prevalence of 13.7%. A study conducted in Delhi by Ray et al showed that prevalence of STI/RTI 65% among women. Jindal et al in rural Punjab 2009 found the prevalence of 20% among females and 3.5% among males.

Ray et al in their study among women in Delhi (2007) reported that most of women complained vaginal discharge (11.2%) which corroborates with present study findings. Similar findings were observed by Samanta et al where vaginal discharge is most common symptom followed by vulval itching. 5

A study conducted in West Bengal by Samanta et al showed that prevalence of urethral discharge in males 46% and burning micturition 10.7%.<sup>5</sup>

Thomas et al in their study in Tamil Nadu in adults 15-45 years age group, at least one of the STD syndromes was present in 25.5% subject. Among women genital discharge was most common symptom found in 38.4%. Others syndromes constitute, genital ulcers 2.7%, scrotal swelling 2.1% and urethral discharge 0.2% and inguinal bubo 0.02%.

A study on prevalence of STD syndrome in Tribal population of Central India by Rao et al observed that 12.1% had at least one of the STD syndromes. Prevalence was almost double in women. The commonest syndrome among women was vaginal discharge 16% while in men was burning micturition 1.8%. <sup>10</sup>

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Institutional Ethics Committee

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