

Validity of Syndromic Diagnosis in RTI / STI Among Women of Reproductive Age Group



Medical Science

KEYWORDS : Validity, syndromic diagnosis, Reproductive tract infections (RTI), Sexually

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ABSTRACT

Background: RTI / STI are a major public health problem among Reproductive age group women especially in developing countries.

Objectives : To determine the distribution of RTI symptoms by syndromic approach.

To compare syndromic diagnosis with laboratory diagnosis of RTI / STI.

Methodology - An observational study to compare syndromic diagnosis with laboratory diagnosis of RTI/ STI among women of 19-45 yrs of age attending gynecology out patient department at, RSCM and Govt. Medical College, Kolhapur during the study period of Jan-July 2013 by using predesigned, pretested structured schedule. A total of 490 women were personally interviewed and clinically examined. They were investigated by serology and vaginal swab. Treatment was given according to national STI case management guidelines. Statistical analysis was done by percentage and proportion.

Results : In present study, Validity of syndromic diagnosis for RTI was 96.7% on laboratory analysis 99% were diagnosed positive on microscopy 38% of them were confirmed on culture.

Conclusion: The commonest syndrome among study population was vaginal discharge syndrome. On laboratory diagnosis, the commonest RTI found was candidiasis.

Introduction :

RTI / STIs are common problems in reproductive age group. If untreated, it can adversely affect the health and social well being of women¹

Syndromic management of STI involves recognising clinical signs and patients symptoms. And prescribing treatment for major causes of that syndrome².

Syndromic approach does not need highly trained STI specialist².

Though ideal approach in the management of STIs is laboratory based treatment of infection. It becomes difficult in remote and rural area. So, the STIs go untreated and the danger of infecting sex partner remains. A more practical alternative for the same is the syndromic management².

RITs include a variety of bacterial, viral and protozoal infections of the lower and upper reproductive tracts of both sexes and most of them are sexually transmitted diseases³.

Female RITs originate in the lower reproductive tract (External genitalia, vagina and cervix) and in the absence of early treatment, they can spread to upper tract (Uterus, Fallopian tubes, Ovaries)³.

The terms RIT and STI are often used interchangeably. It is however important that they are not synonymous¹.

RIT have been broadly defined to include sexually transmitted infections and that are not sexually transmitted. Non sexually transmitted infection include endogenous infection caused by over growth of organisms that are normally present in reproductive tract (Such as bacterial vaginosis and vulvovaginal candidiasis). It also includes iatrogenic infections caused by improperly performed procedures such as unsafe abortions, poor delivery practices, Pelvic examinations and intrauterine copper T device insertion¹.

Objectives :

- 1) To compare syndromic diagnosis with laboratory diagnosis of RTI/ STI.
- 2) To determine the distribution of RTI symptoms by syndromic approach.

Review of literature :

Dr. L. Patnaik et al⁴. conducted study on prevalence of RTI / STI among women of reproductive age group using syndromic case definition. In oct. 2004-2006 at urban slums of Brahmapur, concluded that the most common syndrome was vaginal discharge syndrome (96.42%). Syndromic diagnosis was confirmed with laboratory diagnosis in 35 cases of 56 cases which is 62.5%.

Ray k Bala M et al⁵. conducted cross sectional study in peripheral Govt. clinics of Delhi in March 2002- April 2004. In 490 women to determine syndromic diagnosis in RTI / STI in symptomatic women, concluded that most of the women had complaints of vaginal discharge either singly or in combination with other symptoms. The common disease encountered in laboratory diagnosis included candidial vaginitis.

Materials and Methods:

Study design : Observational study.

Study period : Jan-June 2013.

Sample population : 490 married women of reproductive age group 19-45yrs.

Study setting : Gynecology out patient department of tertiary care referral hospital.

Treatment given as per NACO guidelines for STI management.

Syndrome 1: For urethral discharge, cervicitis, anorectal discharge and asymptomatic.

T. Azithromycin 1gm single dose + T Cetixime 400mg single dose.

Syndrome 2: For vaginal discharge syndrome.

T. Secnidazole 1gm 2tabs stat + T Fluconazole 150mg single dose.

Syndrome 3: For genital ulcer disease nonherpetic syndrome.

T. Doxycycline 100mg BD for 15d + T Azithromycin 1g single dose.

Syndrome 4: For genital ulcer disease – Herpetic Genital Ulcer Disease.

T. Acyclovir 400mg TDSx7d.

Syndrome 5: For lower abdominal pain syndrome.

T. Cefixime 400mg single dose + T. Metronidazole 400mg BDx14d.

T. Doxycycline 100mg BDx14d.

Syndrome 6: For inguinal bubo syndrome.

T. Doxycycline 100mg BDx 21d+ T. Azithromycin 1g single dose.

Inclusion criteria :

All married women of reproductive age group 19-45yrs. Attending Gynecology OPD with complaints of RTI/ STI such as vaginal discharge, lower backache, lower abdominal pain, vulval itching, Burning micturition.

Dyspareunia and those coming for other complaints such as irregular menses, Infertility etc. but on examination showing signs of RTI / STI were included in the study.

Informed written consent was obtained in OPD by study subjects and fully confidentiality was assured. Detailed history was taken. The physical examination and sample collection were done in examination room under aseptic precaution. The clinical diagnosis was based on reported symptoms and clinical signs from per speculum and bimanual examination.

Cervical and vaginal swabs and blood samples were collected for laboratory investigations. Specimens were also collected from asymptomatic patients. They primarily include ANC cases or cases with complaints such as menorrhagia, CuT users, infertility etc. On examination they showed signs of RTI / STI. Vaginal swabs and diagnostic tests were performed for bacterial vaginosis (BV), Trichomonas vaginalis (TV), candida, N. Gonorrhoea, Chlamydia, Trachomatis and for HIV-1 and active syphilis infection.

The same day treatment was offered for symptoms according to national STI syndrome management guidelines.

All investigations and treatment were provided free of charge. The patient was also given STI / HIV education and counseling.

Results and Discussion :

Table 1: Distribution according to syndromic diagnosis.

	Cases	%
Vaginal discharge syndrome	456	96.2%
Cervical discharge syndrome	1	0.20%
Lower abdominal pain syndrome	17	3.58%

All symptomatic cases as well as clinically diagnosed positive cases were taken into consideration while making syndromic diagnosis. Out of 490 cases, 16 did not have any sign on clinical examination. So, 474 cases were included in syndromic diagnosis.

Table 2: Distribution according to laboratory diagnosis.

Out of 490 cases, 457 (93.26 %) were symptomatic. Remaining 33 (6.73%) came to OPD with complaints other than RTI / STI such as menstrual irregularity, CuT users, ANC patients etc. But on clinical examination they showed signs of RTI / STI.

	Symptomatic(N=457)		Asymptomatic (n=33)	
	Microscopy	culture	Microscopy	culture
No growth	1(0.2%)	283(61.9%)	0	19(57.6%)
Growth	456(99.8%)	174(38%)	33(100%)	14(42.4%)
Candidiasis	63(13.8%)	56(32.1%)	5(35.7%)	5(35.7%)
Bacterial vaginosis	15(3.3%)	0	0	0
Chlamydia	8(1.8%)	0	1(3%)	0
Trichomonas vaginalis	13(2.8%)	0	0	0
Single organism	217(47.58%)	118(67.8%)	18(5.45%)	9(64.2%)
Polymicrobial	140(30.63%)	-	9(27.27%)	-

So, endogenous infections (candidiasis and bacterial vaginosis) were commonly found in study population. Positive growth on culture was obtained in 188 cases. So validity on culture to diagnose RTI was 38.8%. Similarly by microscopy 489 cases were diagnosed positive. So validity of microscopy was 99%.

Table 3 : Validity of syndromic diagnosis.

	Prevalence
Syndromic diagnosis	96.7%
Laboratory diagnosis	
On microscopy	99%
On culture	38.3%

In present study, validity of syndromic diagnosis to diagnose RTI was 96.7%. On laboratory analysis 99% were diagnosed positive on microscopy and 38% of them were confirmed on culture.

Conclusion :

The commonest syndrome among study population was vaginal discharge syndrome. On laboratory diagnosis, the commonest RTI found was candidiasis. Syndromic management (Symptoms + clinical diagnosis) is one step effective treatment for RTI / STI. Results of syndromic management co-related with laboratory diagnosis. Thus, if applied correctly syndromic diagnosis can reduce over diagnosis and over treatment in cases of RTI / STI.

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