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The Distribution of Sexually Transmitted Infections (STI) in Batticaloa, Eastern Province of Sri Lanka

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Original Research Article

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Abstract: In developing countries, the sexually transmitted infection is one of top five diseases to which adults seek for medical help**.** There is an association between common STIs and sexual transmission of HIV. Therefore, control of STIs receives attention to control the spread of HIV**.** A retrospective study was conducted in Teaching Hospital Batticaloa during the period between 2014 and 2016. A total of 1190 cases were newly registered in STD clinic, of which 317 cases were confirmed to be having STIs. A total of 317 confirmed cases of infection episodes were recorded in all patients attended to STD clinics during this three years. Of which, 96.8% were due to STI and 3.2% due to lower reproductive infections. Among the STIs; genital herpes (22.71; Syphilis (16.71%). gonorrhoea infection 4.41%. Trichomonas vaginalis was 7.25%. During the period of three years only one case of HIV was identified. Hepatitis B infection constitutes to 15.14% stays in order next to Syphilis **.**bacterial infections shows a decreasing trend while a gradual increase of viral infections is observed. Public health should be strengthened especially use of condom and avoiding sexual contact with unreliable sexual partner in order to control STIs.
Keywords: Sexual transmission infection, HIV, Syphilis, gonorrhoea.

INTRODUCTION

In developing countries, the sexually transmitted infection (STIs) is categorised as one of top five diseases to which adults seek for medical help [1]. There is an association between common STIs and sexual transmission of HIV.

There is several biological and behavioural factors influence the transmission of STI s and HIV. As HIV is major health problem, its control receives utmost public health problem. Therefore, control of STIs receives attention to control the spread of HIV [2].

The problem with most STDs is that they can occur symptom-free and can thus be passed on unaware during unprotected sexual intercourse. Female adolescents are likely to have a higher risk of contracting an STD than their male counter parts as their cervical anatomic development is incomplete and especially vulnerable to infection by certain sexually transmitted pathogens. For a female partner complication can include pelvic inflammatory diseases and possibly lead to ectopic pregnancies and infertility [3-5].

In order to develop strategies to control STIs we need to know several characteristics of disease such as its distribution, incidence. This study is aimed to identify the STIs incidence in Batticaloa. Batticaloa is located in the Eastern province of Sri Lanka. Its total population is about 550000 and live in 2610 square km area. There is a sexually transmitted disease (STD) clinic and it is one of the 30 clinic centres in the country. STIs screening, diagnosis and management are the main function of the STD clinics. Here standard formats are available to carry out record and report data. Data are presented to demonstrate the magnitude and trends of STIs.

Controlling sexually transmitted infections (STIs) remains a cornerstone of any HIV control programme. Therefore, this mechanism helps to assess the risk for HIV infections in these geographical locations [6]. Objective of this paper is to describe magnitude and trends of STIs in Batticaloa over the three years of 2014, 2015 and 2016

METHODS

This retrospective study was conducted in Teaching Hospital Batticaloa during the last three years period between 2014 and 2016. A total of 1190 cases were newly registered in STD clinic, of which 317 cases were confirmed to be having STIs.

Data of confirmed cases were processed using SPSS version 21. Descriptive statistics methods were

used to analyse the results as whole numbers, percentages, tables, and charts.

RESULTS

Epidemiological and clinical data of STD attendees from the STD clinics in Batticaloa district of Sri Lanka is used for analysis. A total of 317 confirmed cases of infection episodes were recorded in all patients attended to STD clinics during this three years. Of which, 96.8% were due to STI (Genital Herpes, Genital Warts, Trichomoniasis and Hepatitis B HIV,Syphilis,Gonorrhoea& presumptive GC,non-Gonococcal urethritis and cervicitis,) and 3.2% due to lower reproductive infections (candidiasis and bacterial vaginosis) though they do not belong to the category of STIs. Over the years bacterial infections shows a decreasing trend while a gradual increase of viral infections is observed

Among the STI episodes the bulk was due to genital herpes (22.71%) followed by Syphilis (16. 71%).The gonorrhoea infection contributes to 4.41%. (Table 2)

Further it is to be noted that while late latent syphilis is14.51%, the infectious syphilis diseases occur only in 1.57% (infectious syphilis -is a syphilis infection that has been acquired recently; exposure has been within two years). On the other hand, there were only 2 cases (0.63%) of congenital syphilis was detected during the same period.

Incidence of Trichomonas vaginalis was 7.25%. During the period of three years only one case of HIV was identified. During last three years (16.71%) Syphilis and (7.25%) Trichomoniasis has a higher occurrence rate than the national figure. Bacterial infection is higher in Batticaloa district when compared to whole Sri Lanka. Over the last three years Hepatitis B infection constitutes to 15.14% stays in order next to Syphilis. (Table-2)

Data shows that majority of cases got registered in STD clinic were (62.6%) married (*Table-3*) and also majority of them were (53.9%) unemployed. Over the period of study significant amount of (15%) students are also got registered in STD clinic. (*Table-4*)

Non-gonococcal urethritis and cervicitis are caused by a number of infectious agents other than *Neisseria gonorrhoeae*. *Chlamydia trachomatis* is one of the commonest causative agents. Currently specific diagnostic tests for *C. trachomatis* are not available in most of the STD clinics in Sri Lanka and a tentative diagnosis is arrived using microscopy. During the study period 19.56% of the patients had this disease.

Table-1: Comparison of Distribution of Sexually transmitted infections between Batticaloa district and the country over the last three years

Sexually Transmitted Infection	2014		2015		2016	
	Srilanka (%)	Batticaloa (%)	Srilanka (%)	Batticaloa (%)	SriLanka (%)	Batticaloa (%)
HIV	0.00	1.18	0.00	0.00	<1.00	0.00
Total Syphilis	15.00	20.00	12.00	14.52	10.00	16.67
Gonorrhoea& presumptive GC	6.00	1.18	5.00	8.06	3.00	2.78
Genital Herpes	30.00	21.18	30.00	20.97	33.00	25.93
Genital Warts	20.00	10.59	23.00	5.65	23.00	12.96
Trichomonasis	1.00	9.41	1.00	5.65	1.00	7.41

Table-2: Summary of STIs over three years

Sexually Transmitted Infections	Percentage (%)
HIV	0.31
Total Syphilis	16.71
Gonorrhoea& presumptive GC	4.41
Genital Herpes	22.71
Genital Warts	9.46
Trichomonasis	7.25

Table-3: Marital status of patients registered in STD clinic over 3 years

	2014	2015	2016
Single	114 (25.4%)	115 (29.7%)	124 (34.8%)
Married	321 (71.6%)	246 (63.7%)	187 (52.5%)
Separated/Divorced/Widowed	10 (2.2%)	01 (0.25%)	06 (1.6%)
Living together	00 (0%)	00 (0%)	00 (0%)

Table-4: Literacy level of patients got registered in STD clinic over 3 years

Literacy	2014	2015	2016
Unemployed	307 (68.5%)	182 (47.1%)	165 (46.3%)
Employed	84 (18.7%)	114 (29.5%)	83 (23.3%)
Student	50 (11.1%)	52 (13.4%)	73 (20.5%)

DISCUSSION

Controlling sexually transmitted infections (STIs) remains a cornerstone of any HIV control programme. Unlike many other countries, Sri Lanka continued to maintain a strong commitment to combat STIs. Currently Sri Lanka is experiencing a low-level HIV epidemic.

The future epidemic will be influenced by socioeconomic and behavioural factors in the region. The presence of a large youth population, internal and external migration, clandestine but flourishing sex industry, low level of condom use, concurrent sexual relationships among most-at-risk-populations are risk factors for STIs. On the other hand, there are certain protective factors.

During the period of three years only one case of HIV was identified. However, the reported numbers represent only a fraction of HIV infected people in the region as many infected persons may perhaps not be aware of their HIV status and in addition, stigma and discrimination towards HIV hinders seeking HIV testing services.

Prevention of STIs includes primary as well as secondary prevention. As the results shows STIs are more common among married people so we can make the couple aware of STIs through health awareness programme conducted by preventive health sectors.

The study results show significant number of students also affected by STIs for which we can educate them from their school level by conducting awareness programmes. Also, we can assess the knowledge and awareness regarding STIs among school going adolescents. This highlights the importance of sexual health education to prevent sexual transmitted infections among school students. The school plays an important role for sex education, especially for those adolescents with no other information sources. Furthermore, some parents are not comfortable discussing sexual issues with their children. It therefore comes as no surprise that many young people cite the school as an important source of information about sexually transmitted diseases. The school setting offers an effective way to access adolescent populations universally, comprehensively and uniformly [7-9].

Several studies have been done regarding awareness and knowledge of STIs among adolescents and it shows that awareness was generally high for HIV/AIDS (above 90%) and low for HPV (range 5.4%-66%). In general, the studies reported low levels of awareness and knowledge of sexually transmitted diseases, with the exception of HIV/AIDS. It is because extensive awareness campaigns on HIV/AIDS have been conducted globally [10].

For the prevention of STIs condom use should be promoted for safer sex. Several individual, social, and cultural factors influence on selecting the preventive methods such as condoms. Therefore, an alteration in behaviour is required to prevent the spread of these infections.

As secondary preventive measures we have to promote early health care seeking behaviour among public and also as a health system we have to give accessible, effective and acceptable care to them. Most important fact is once they get infection we have to give counselling to them to overcome the struggle [11].

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