

Study of Pattern and Trends of Sexually Transmitted Infections in Government Thoothukudi Medical College

J Thadeus¹, B Senthil Selvan², Heber Anandan³

¹Associate Professor, Department of Dermatology and STD, Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu, India,

²Assistant Professor, Department of Dermatology and STD, Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu, India,

³Senior Clinical Scientist, Department of Clinical Research, Dr. Agarwal's Healthcare Limited, Tamil Nadu, India

Abstract

Introduction: Sexually transmitted infections (STIs) constitute a major public health problem for both developing and developed countries. Prevalence and pattern of presentation of STIs would help in designing a better treatment facility to overcome the stigma and spread of the disease in the community.

Aim: This study aims to unravel the spectrum and changing trends of STI in patients attending STI clinic of Thoothukudi Medical College Hospital.

Materials and Methods: This is a prospective study conducted at the Department of Dermatology and STD, Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu. All the new patients attending STD clinic from January 2011 to December 2016 were included in the study.

Results: During the 6-year study period, 13,550 patients attended STD clinic. Among the total patients visiting STD clinic, 4461 were symptomatic. These symptomatic patients were evaluated for various STIs.

Conclusion: The year's trend in our study reveals a gradual increase in female attendance in STI clinics, increasing viral STIs, and declining bacterial STIs. This indicates a more aware population seeking early treatment and effective management of STI by the current health-care system.

Key words: Sexually transmitted infections, Trends, Patterns, Thoothukudi

INTRODUCTION

Sexually transmitted infections (STIs) are diseases and syndromes that are epidemiologically heterogeneous, but all of which are almost always transmitted sexually.^[1] STIs constitute a major public health problem for both developing and developed countries. The pattern of STIs differs from country-to-country and region-to-region, especially in India.^[2,3] STIs increase the risk of transmission of human immunodeficiency virus (HIV) infection posing an immense need to understand

the pattern of STIs prevailing in the particular region. A review of the epidemiology and trends of STIs showed a declining number of all STIs.^[4] There was a progressive decline in the incidence of bacterial STIs over those 20 years, with viral STIs remaining at a relatively constant level. The increasing demand for STI services may be attributed to an increased incidence of infections, increased public awareness of STIs, and increasing patient expectations as well as an improved level of services available at the newly renovated clinic site. Therefore, we planned this study to unravel the pattern, clinical profile, and trend of STIs in Thoothukudi. It is important to monitor trends in STIs to implement effective policies as well as health education and prevention programs.

Aim

This study aims to study the trends of STIs in Thoothukudi over the last 6 years in patients attending STI clinic of Thoothukudi Medical College Hospital.

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Corresponding Author: B. Senthil Selvan, Department of Dermatology and STD, Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu, India. E-mail: bavanasarath@gmail.com

MATERIALS AND METHODS

The present study is a prospective study conducted for a period of 6 years from January 2011 to December 2016 at the Department of Dermatology and STD, Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu. The study population included all the new patient's attending STD clinic at Thoothukudi Medical College Hospital. Each patient was evaluated for STI like clinical history, thorough clinical examination and appropriate laboratory investigations including relevant serology such as enzyme-linked immunosorbent assay for HIV and venereal disease research laboratory (VDRL) test for syphilis. All patients were counseled about the risk of unprotected sexual intercourse, the risk of HIV transmission in the presence of other STIs, the importance of partner treatment and condom use. Asymptomatic patients were also followed up clinically and serologically for 6 months. STIs, which were not included in the syndromic management, were also identified clinically and with relevant laboratory investigations. Partner identification and condom promotion were done. All patients were treated as per NACO's guidelines.

RESULTS

The total population of Thoothukudi district is around 17 lakhs. The Government Thoothukudi Medical College Hospital OPD caters around 6 lakhs patients per year. An average of 30,000 (5.1%) visited Dermatology and STD OPD, of which 2250 (0.35%) attended STD clinic [Figure 1].

During the 6-year study period, 13,550 patients attended STD clinic. Of them, 6890 (50.85%) were males, 6558 (48.4%) were females and 102 (0.75%) were transgender with the sex ratio of 68:65:1 [Figure 2]. Year

wise analysis shows a gradual increase in female patients [Figure 3]. Most of the patients (72%) were in the 21–30 years age group.

Among the total patients visiting STD clinic, 4461 were symptomatic and 9089 were asymptomatic. There was not much variation in STD clinic attendance during the 6-year study period. Among the symptomatic, 1450 were males, 3006 were females, and 5 were transgender. In males, the most commonly seen STD was urethral discharge (463 [3.42%]), followed by herpes genitalis (212 [1.56%]), inguinal bubo (77 [0.57%]), warts (55 [0.43%]), syphilis (21 [0.15%]), and scrotal swelling (3 [0.02%]). Female patients predominantly presented with vaginal cervical discharge (2027 [14.96%]), followed by lower abdominal pain (739 [5.45%]), herpes genitalis (83 [0.61%]), warts (19 [0.14%]), syphilis (13 [0.09%]), and inguinal bubo (6 [0.04%]). In transgender, urethral discharge was the most common presentation.

Among the 2027 patients with vaginal cervical discharge, the most commonly identified STI was candidiasis (1001 [49.38%]) followed by bacterial vaginosis (571 [28.17%]) and trichomoniasis (68 [3.35%]) [Figure 4].

VDRL test was positive in 34 (0.25%) patients, of which 21 were males and 13 were females. Among the positive males, 12 (35.29%) were asymptomatic. In females, 4 (11.76%) were asymptomatic indicating early latent syphilis. HIV seropositivity was noticed in 45 patients, of them, 25 were males, 19 were females, and 1 was transgender.

DISCUSSION

Young adults (21–30 years) dominated the study population indicating more sexual activity, promiscuity,

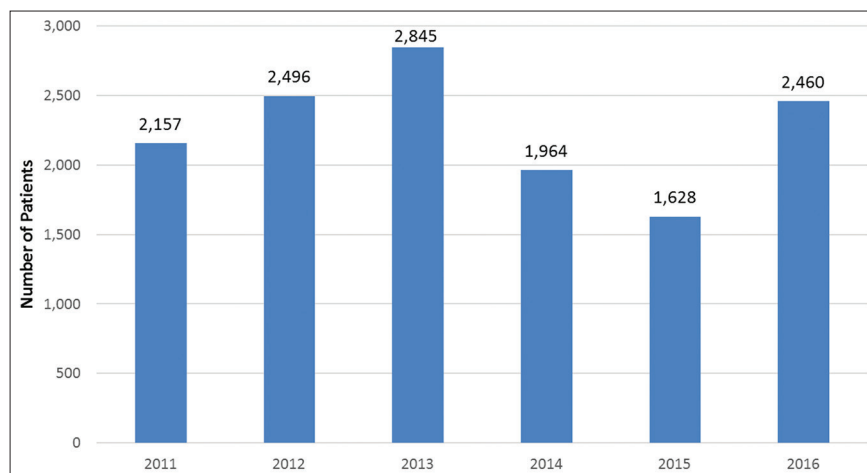


Figure 1: STD outpatient census

and less awareness within the age group. This is in concordance with other Indian studies.^[2-4] The finding that young population was becoming more sexually active at a younger age and inadequate education on STIs for youths may account for the sharp rise in STI incidence among young people. School-based programs dealing with sexuality should be taught to school-going adolescents as well.^[5] Results from the Global Sex Survey report undertaken by Durex showed that the average global age for the first sex is now 17 and demonstrated a trend toward losing one's virginity earlier, with today's 16–20 years old becoming sexually active by the average age of 16.5 years.^[6] In our study analysis, the sex ratio (1.05:1) was almost equal. However, year wise analysis reveals a gradual increase in female patient attendance. This indicates more awareness and early treatment-seeking attitude in the female population which is a positive outcome. Several factors may account for the increase, such as increased public awareness of STIs, which may have resulted in an increased patient load and thus increased case detection.

Among the symptomatic patients, the STI prevalence in male and female patients was 1450 (10.7%) and 3006 (22.18%), respectively. This finding was in contradiction to previous studies where a male preponderance was noticed.^[5] This might be due to the more awareness and willingness to be examined by the female patients.

In symptomatic males, urethral discharge 463 (3.42%) dominated the STI spectrum followed by herpes genitalis 212 (1.56%). This again is in contradiction with other studies.^[2,7,8] This predominance of urethritis can be due to the more prevalence in the local population and early presentation. Other bacterial STIs were less common due to the widespread use of antibacterials.

In symptomatic female patients, VCD 2027 (14.96%) and PID 739 (3.14%) dominated the spectrum followed by herpes genitalis and warts. This finding is in concordance with other studies. Apart from VCD and PID, viral STIs were more prevalent. The greater infectivity, persistent, and recurrent nature of viral infections are responsible for their increasing trend in the current STI scenario.^[9,10]

VDRL and HIV positivity were noticed in 34 (0.26%) and 45 (0.33%) patients, respectively, indicating a continued need for serological screening of STIs. The relatively low HIV prevalence in our study may be the result of active targeted health promotion, particularly for sex workers and their clients, the presence of an open-access STI clinic with an effective STI control program, universal screening of blood donations and careful surveillance and analysis of trends of STIs and HIV infection.

The year wise trend in our study reveals a gradual increase in female attendance in STI clinics, increasing viral STIs, and declining bacterial STIs. This indicates a more aware population seeking early treatment and effective management of STI by the current health-care system.

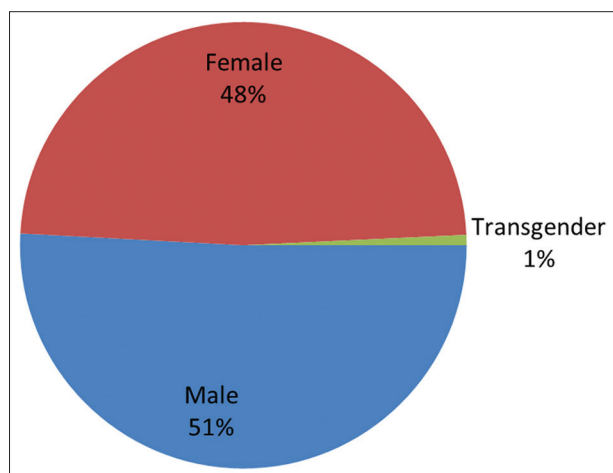


Figure 2: Distribution of gender

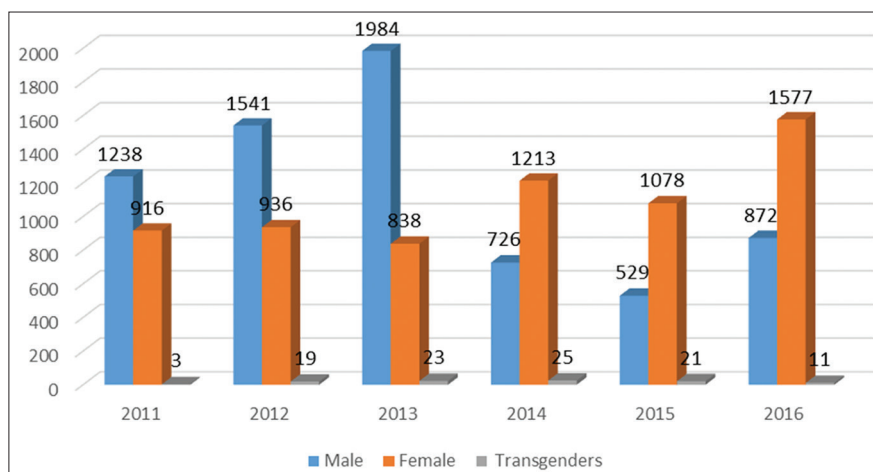


Figure 3: Distribution of Gender in year wise data

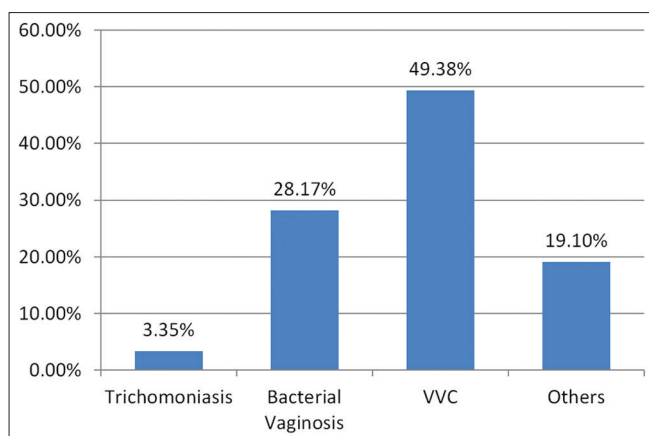


Figure 4: Distribution of vaginal cervical discharge

CONCLUSION

Although there has been a significant decline in the overall incidence of STIs over the last decade, there has been a rise in female STI patients over the last 6 years. This has resulted in the need to identify the causal factors, and to intensify existing, as well as develop new STI/HIV prevention programs for the general population and certain core groups.

Research results must be used to plan, implement, and evaluate STI/HIV prevention programs. The full range of channels available should be utilized for disseminating

information. This will require collaboration and coordination with other organizations (both governmental and non-governmental).

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