

Viewing the resurgence of early syphilis in light of increasing male homosexuality and childhood sexual abuse

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Abstract

Back Ground and Objectives: A rising trend of syphilis has been documented worldwide recently. After decriminalization of homosexuality in India more and more males having sex with males (MSMs) have come out to seek medical advice. **Aim:** We evaluated sexual behavior of patients with syphilis attending our sexually transmitted infections (STIs) clinic focusing on the factors associated with the increasing MSM practices and rising trend of syphilis among MSM. **Materials and Methods:** This is a 10-year (2006–2015) descriptive study from among STI patients attending the dermatology outpatient department in a tertiary care center. Recognizing the rising homosexuality, from 2011 onward, we had given a questionnaire to assess their sexual behavior and sexual practices. **Results:** Analysis of data from 560 cases diagnosed as having STI revealed a rising trend of all STIs including syphilis from 2011 onward. The MSM cases reporting to our STI clinic showed a sustained rise from 2011 onward. The most common STI in MSM was syphilis that too early acquired. More than half of the MSM indulged in bisexual activities and the predominant mode was anoreceptive. Nearly 70% had unprotected contact and most had early sexual debut (<20 years). Thirty-six percent gave a history of childhood sexual abuse (CSA) by a close male acquaintance. **Conclusions:** After 2011, we have observed a resurgence of early acquired syphilis which coincided with an increase in promiscuous homosexuality. Many of the MSMs were bisexuals and homosexuality was an acquired behavior. An alarming increase in the incidence of CSA was observed in MSMs.

Key words: Childhood sexual abuse, males having sex with male, sexually transmitted infections, syphilis

INTRODUCTION

Many studies from India and western countries have reported a resurgence of syphilis in the current decade, especially among males having sex with males (MSMs).^[1-3] Interestingly, bisexual behavior is more common than isolated homosexuality. This makes MSM a bridge population in spreading sexually transmitted infections (STIs) and HIV.^[4] Many MSMs without natural homosexual orientation indulge in such a behavior due to misconceptions about transmitting and acquiring STIs. Various factors associated with initiation and continuation of homosexual behavior need to be assessed to implement targeted STI control strategies.

The aim of this study is to evaluate the sexual behavior of patients with syphilis and changing clinical patterns of acquired syphilis in patients attending our STI clinic. We also assessed the factors associated with the increasing MSM practices and rising trend of syphilis among MSM.

MATERIALS AND METHODS

This is a Cross-sectional study carried out in a tertiary

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care center in South India from January 2006 to December 2015 (10 years). Data were collected from patients with STIs attending the outpatient clinic of the dermatology department. The diagnosis of various types of STIs were made clinically and relevant investigations including HIV serology, venereal disease research laboratory (VDRL), hepatitis B surface antigen, anti-hepatitis C virus antibodies were done in all patients. Detailed sexual history emphasizing on sexual behavior was taken to identify the MSM.

Recognizing the rising homosexual behavior and resurgence of early acquired syphilis, we had given a questionnaire to MSM patients from 2011 onward. It consisted of patient details, various factors such as sexual interests, history of childhood sexual abuse (CSA), age of sexual debut, influence of peer pressure and substance abuse, awareness about use of protective barrier methods, and the risk of acquiring STIs by homosexual contact. Questions regarding their willingness for heterosexual marriage and relationships were also asked to unmarried individuals, which helped in assessing whether they had a natural homosexual orientation.

Statistical analysis

Statistical analysis was performed using statistical package for the social sciences 17.0 software (SPSS IBM corps Bengaluru, India). Various statistical tests applied are independent sample *t*-test, Levene's test, and comparison of means.

RESULTS

A total of 560 cases were diagnosed as having STI during the past 10 years (2006–2015). Among them herpes genitalis (45%) topped the list followed by genital wart (34%) and syphilis (14.6%) [Table 1]. In the study population, 59% were male, 41% were female with a male to female ratio 1.5:1. The majority of patients belonged to 21–30 years of age group. Eighty percent of patients were married, 17% were unmarried and rest of the study group was constituted by divorcees and widowers. The analysis of data revealed a rising trend of all STIs.

The various clinical presentations of syphilis are shown in Table 2.

From 2011 onward, early symptomatic syphilis showed an increasing trend, especially among MSM. The most common STI among MSM was early acquired syphilis (52.8%).

The most common presentations of secondary syphilis were syphilis corneae followed by lymphadenopathy, asymptomatic maculopapular rash and condyloma lata. Concomitant STIs among patients with syphilis

included HIV infection (9.5%), genital herpes (5%), and hepatitis-B (3.6%).

Of the total 560 cases, 85 patients were sero-reactive by VDRL. The incidence of syphilis showed a steady increase in the successive years reaching the highest seroprevalence of 23% in the year 2015 as shown in the chart [Figure 1]. This increase in seroprevalence from 8% in 2010 to 23% in 2015 was statistically significant ($P = 0.000$).

The analysis of the sexual behavior of patients attending our STI clinic revealed that 87% of patients were heterosexuals, 7% were homosexuals and 6% were bisexuals. Of the total 302 males, 72 patients gave a history of MSM contacts. The MSM cases reporting to our STI clinic showed a sustained rise from 2011 onward ($P = 0.003$) [Figure 2]. The youngest patient being 16 years of age. None of the patients reported themselves to be sex workers. Sixty percent of the MSM were married and promiscuous. More than half of the MSM patients indulged in bisexual activities. Ninety percent had heterosexual interest but still indulged in homosexual activities under various circumstances such as the influence of alcohol and peer pressure.

The predominant sexual practice among MSM was anoreceptive (58%). Nearly 70% had never used any barrier methods. The age of the first contact was early (<20) in MSM compared to heterosexuals.

Thirty-six percent gave a history of CSA by their close male acquaintances and this was their first homosexual initiation. The prevalence of HIV in MSM was 5%.

DISCUSSION

The pattern and prevalence of STIs vary in different parts of the country. In our study, the majority of patients were in the age group of 21–30 years with male predominance which can be attributable to the highest sexual activity in this age group.^[5] As in other studies from India, we noted herpes genitalis was the most common STI followed

Table 1: Pattern of sexually transmitted infections

Diagnosis	No. of patients (%)
Herpes genitalis	250 (45)
Genital warts	174 (31)
Syphilis	82 (14.6)
Gonococcal urethritis	14 (2.4)
Others	40 (7)

Table 2: Clinical diagnosis of venereal disease research laboratory reactive patients

Diagnosis	No. of patients
Primary	7
Secondary	20
Latent	58

VDRL=Venereal disease research laboratory

by genital wart.^[6,7] Although viral STIs outnumber, the bacterial STIs Syphilis is making its resurgence from the year 2011 onward. Syphilis presented in the latent stage before 2011. After 2011, we have observed a resurgence of early acquired syphilis that too among MSM population [Figure 3].

The analysis of sexual behavior of the patients attending our STI clinic revealed a marked increase in MSM population after 2011. Before 2011, the prevalence of MSM patients attending our STI clinic was 9%, and after 2011 it showed a marked rising trend which is statistically significant ($P = 0.003$). Such findings have also been reported from the USA, Germany, and Sweden. In the USA, the rise in the prevalence of syphilis has been ascribed to increased number of men who have sex with men and reduction in safe sex practices among them, while in Europe, the rise is attributed to increased number of MSMs as well as increased testing in high risk groups.^[1,2] We found that the re-emergence of syphilis that too early syphilis coincided with increasing promiscuous homosexuality. A similar observation was made by Shah *et al.*, in his study conducted in Gujarat where the study population comprised a sizeable number of MSMs.^[8]

More than half of our patients with history of MSM contacts were bisexuals. None of them identified themselves as sex workers. Bisexual MSMs constitute an important bridge population for transmission of HIV or sexually transmitted disease. Nearly 90% of our MSM patients were interested in heterosexual contact and relationship, which indicates that a large proportion of patients did not indulge in such behavior due to a natural homosexual orientation. More than half of the participants believed that homosexual behavior carried a lower risk of transmission of STIs as compared to heterosexual contact. One direct reflection of such a misconception was the high percentage (70%) of the participants who had unprotected homosexual contact. Anoreceptive contact was also high, which is associated with highest risk of transmission of HIV, Syphilis, and hepatitis B.^[9] Postulated reasons for initiation and continuation of acquired homosexual behavior are, lack or fear of having heterosexual contacts, misconceptions regarding risk of acquiring STIs, peer pressure, influence of alcohol, inequalities of occupation, and financial power.^[10] Since homosexuality is an acquired behavior in many of them, educating the adolescents regarding the increased risk of STI transmission in homosexual behavior and the importance of using protective barrier methods can do much in improving their sexual health.

This study draws our attention to the alarming increase in the incidence of CSA among MSM. Thirty-six percent of our MSM patients were sexually abused in their childhood. A study conducted in South India in recent

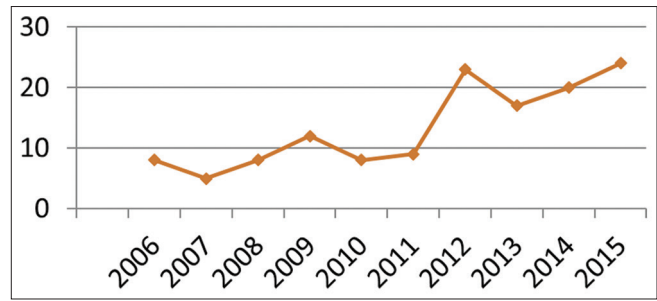


Figure 1: Rising trend of syphilis

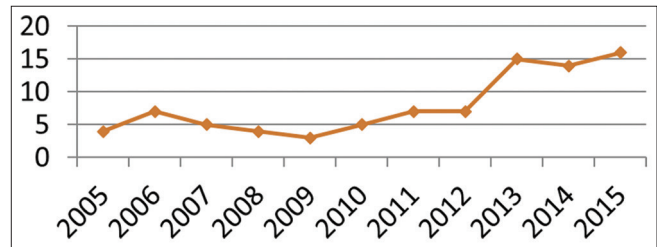


Figure 2: Rising trend of males having sex with males

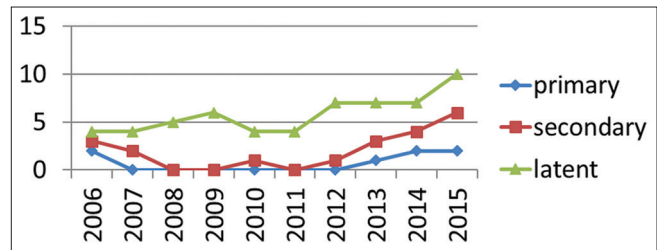


Figure 3: Resurgence of early syphilis in recent years

years reported a 14.8% incidence of childhood sexual abuse in males. The perpetrator was a relative in most cases. Among these 66% of male victims reported homosexual activity in adulthood.^[11] A thorough literature search did not show any studies on MSM with syphilis who had CSA. Most of the reports are on MSM men infected with HIV. History of CSA is highly prevalent among HIV positive men who engage in risky sexual behavior with other men. Considerable evidence suggest that MSM who experienced CSA are at a high risk for HIV infection and other STIs.^[12] Results from a study of HIV infected MSM from the US cities of Seattle Washington DC, Boston, New York, Los Angeles and Houston revealed an association between CSA and increased unprotected anal intercourse among men who already had a tendency to engage in risky behavior.^[13] Indian studies linking CSA, MSM behavior, and resurgence of syphilis are lacking.

CONCLUSIONS

Our study has shown a resurgence of syphilis especially early acquired syphilis among MSM. Most of them were bisexuals without pure homosexual orientation. An alarming incidence of CSA among MSM was noted. This calls for implementing awareness programs to reduce

high risk sexual practices among MSM and targeted interventions to prevent male CSA.

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Conflicts of interest

There are no conflicts of interest.

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