



SYPHILIS-IS IT REALLY OVER!! RESURGENCE OF THE GREAT IMITATOR –SYPHILIS

Dermatology

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ABSTRACT

Background: Syphilis is a sexually transmitted disease caused by bacterium *Treponema pallidum*. There is a rising trend due to the change in sexual orientation and behavioural practices. This rising trend has been noted in United States of America, United Kingdom and India. **Aims And Objectives:** This study was done to observe the age, sex distribution, clinical presentation and serological findings of syphilis in patients attending the OPD. **Materials And Methods:** A prospective detailed analysis of all the patients who had syphilis was done from May 2021 to July 2022. Age, occupation, marital status, sexual behavior and the complaints with which they present to OPD was collected. Information regarding the venereal disease research laboratory test (VDRL) and *Treponema pallidum* hemagglutination assay (TPHA) was noted. **Results:** Among the patients who attended the OPD between May 2021 to July 2022, 35 were found to have syphilis. Among them 17 had primary syphilis. Most of them belong to the age group of 21-30 constituting 45.7%. Male constituted 71.4%. Most common occupation group affected in our study was farmer (28.5%). Homosexual behaviour was seen in 17.14% and heterosexual behaviour was seen 51.4%. The most common clinical feature seen in our study was papule which was seen in about 44% of males and among females it was maculopapular rash. With reference to anatomical site palms and soles were most commonly involved. Moth eaten alopecia was seen in 2 cases. HIV infection was noted in 8 people. **Conclusion:** Our study shows that the syphilis prevalence is more in males compared to women. Due to the change in sexual orientation and behavioural practices there is rise of syphilis in both homosexuals and heterosexuals. Farmers were the most common group affected and this shows the need for proper sexual education among the people living in the rural areas. The most common age group affected was the most sexually active group indicating the need for eliminating the stigma related to sexual education and counseling the young adults regarding the same.

KEYWORDS

INTRODUCTION:

Syphilis, caused by spirochete *Treponema pallidum* is a great imitator of all disease and is one of the curable sexually transmitted infections. Worldwide prevalence of syphilis is 0.5% with regional variation. There is rising trend due to sexual orientation changes and various behavioural practices. An increase in the prevalence of syphilis has been documented in the United States of America, United Kingdom and India.²

The exact prevalence of syphilis in India is not known because of various reasons.³ Previous epidemiological studies report diminishing prevalence along with other bacterial STIs.³ This disease is known to human kind 15th century being introduced to Europe by Columbus sailor who acquired it from the new world.⁴ This infection is known for its varied manifestations, chronicity and its latency. Keeping the rising trends in syphilis as background this study was done to observe the age, sex distribution, clinical presentation.

METHODS:

A prospective detailed analysis of all the patients who had syphilis was done from May 2021 to July 2022. Age, occupation, marital status, sexual behavior and the complaints with which they present to OPD was collected. Information regarding the venereal disease research laboratory test (VDRL) and *Treponema pallidum* hemagglutination assay (TPHA) was noted.

Inclusion criteria included patients presenting to the OPD with clinical features suggestive of syphilis, above the age of 12 years with history of sexual exposure and seropositivity for VDRL or TPHA were included in the study.

Exclusion criteria age less than 12 years, pregnant women and patients with no history of sexual exposure. All the data entry was done using Microsoft excel 2010 software and statistical analysis was done by SPSS version 17.0.

RESULTS:

Out of the total patients attending OPD between May 2021 to July 2022, 35 patients were found to have syphilis. Among these 17 had primary syphilis (Table 1). Most of the patients were between the age group of 21-30 constituting about 45.7% (Table 2).

Sex distribution and marital status:

Among the total number of cases male constituted about 71.4% and the remaining were women (Table 3). 21 patients were married.

Occupation and literacy rates:

Most common occupation in our study was farmer (28.5%) followed by homemakers constituting 20%, unemployed being 17.1%, with professionals being affected the least (8.5%). About 31.4% had only middle to high school education background. About 14.2% were illiterates.

Sexuality:

Heterosexual behaviour was more common in our study which was seen in about 51.4%, followed by homosexuality seen in 17.14% individual and bisexuality was seen in 1 person. Homosexuality was more commonly seen in unmarried individuals and bisexuality was also seen in unmarried individual.

Promiscuity was seen in 37.14% of married, which was more when compared to unmarried.

Clinical features:

The most common cutaneous lesions in our study were papule which was seen in 44% of males, followed by genital ulcer and maculopapular rash which was seen in 20% each, moth eaten alopecia was seen in 2 patients the least common type was plaque seen in one patient. Among women the most common cutaneous lesion was maculopapular lesion seen in 50%, followed by papules seen in 30%. Condyloma lata lesions were seen in 2 patients and 8 patients had

concomitant HIV infections. With reference to the anatomical region the most common site involved was palms and soles presenting with hyperpigmented scaly macules which was seen in about 31.4%, penis was the most common site among male seen in about 40%. Scrotum was involved in 16%. Hair involvement seen in 2 cases.

DISCUSSION:

There is a raising trend of syphilis in many countries including India as stated by many studies.³ Owing to the varied presentation syphilis has earned the names such as Great Imitator. With the effective treatment the incidence of syphilis had greatly declined in the 1950s, in the late 1980s syphilis cases saw a marked rise mainly associated with commercial sex workers and cocaine abuse.⁶

In our study primary syphilis was seen in about 17 patients (51.4%), this is in contrast to study conducted by Jain et al where primary syphilis was most common.³

The most common age group affected in our study was 21-30 years about 48.7% which is in contrast to the study conducted by Chandran et al where it constituted about 60%.¹ the study conducted by Nisha et al also showed similar results.⁷ The reason for increase in the cases among this age group might be the high sexual activity and easy contact through websites. Among females the most common age group in our study was between 31-40 years.

60% of our cases were married and homosexuality was seen in about 17.1% of cases and bisexuality was seen in one patient and the remaining practiced heterosexuality. The rising trend can be attributed to the change in sexual orientation and behavioural practices.⁸

Male constituted about 71.4% similar studies were reported by Chandran et al.¹ This is due to the stigma related to patients attending OPD for sexual problems.

Farmers constituted 28.5% and were the most common group. The study conducted by Gangwar et al showed the most common group affected were unemployed (63.3%).⁹

The most common clinical pattern seen in our study was papule (44%), followed by genital ulcer and maculopapular rash in males. In females the most common type of clinical pattern was maculopapular lesions (50%). In the study conducted by Kar et al the most common clinical presentation was maculopapular rash.

HIV infection was seen in 8 patients constituting about 22.8% and moth-eaten alopecia was also seen in our study.

Although thought to be at the verge of elimination in India, the present-day data shows that there is resurgence of syphilis. The presentation of syphilis in current day is milder than those during older days. It is very difficult to understand the STI scenario in India due to lack of proper STI surveillance systems.

CONCLUSION:

Our study shows that the syphilis prevalence is more in males compared to women. Due to the change in sexual orientation and behavioural practices there is rise of syphilis in both homosexuals and heterosexuals. Farmers were the most common group affected and this shows the need for proper sexual education among the people living in the rural areas. The most common age group affected was the most sexually active group indicating the need for eliminating the stigma related to sexual education and counseling the young adults regarding the same.

DECLARATIONS:

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Conflict of interest: None declared

Table1: Census of primary syphilis and secondary syphilis

Total	Primary	Secondary
35	17	13

Table 2: Age and sex distribution

Age in years	Male	Female
12-20	3	
21-30	13	3
31-40	8	5

41-50	1	1
>50		1

Table 3: Sex distribution

Total	Males	Females
35	25	10

Table 4: Marital status

Married	Unmarried
21	14

Table 5: Occupation

Farmer	10
Homemaker	7
Student	5
Professional	3
Unemployed	6

Table 6: Sexual behaviour

Homosexual	6
Heterosexual	18
Bisexual	1

Table 7: Clinical features

Clinical features	Male	Female
Genital ulcer	5	2
Macule	1	
Papule	11	3
Maculopapular rash	5	5
Plaque	1	
Moth-eaten alopecia	2	

Table 8: Site of involvement

Sites	Male	Female
Face and neck	3	
Soles and palms	7	4
Penis	12	
Mucosa	2	
Scrotum	4	
Vulva		3
perianal	2	2
Thigh	1	1



Figure 1: Maculopapular Rash



Figure 2: Condyloma lata

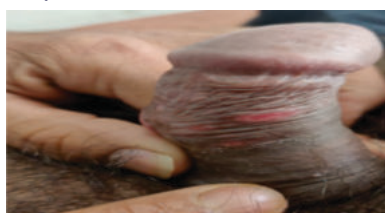


Figure 3: Genital ulcer



Figure 4: Moth eaten alopecia

REFERENCES:

1. Chandran V, Periyasamy P, Kalaivani S. Clinico epidemiological study of secondary syphilis: a retrospective study from a tertiary care centre in Tamil Nadu. *Int J Res Dermatol* 2019;5:272-6.
2. Sethi S, Mewara A, Hallur V, Prasad A, Sharma K, Raj A. Rising trends of syphilis in a tertiary care center in North India. *Indian J Sex Transm Dis AIDS*. 2015 Jul-Dec;36(2):140-3. doi: 10.4103/0253-7184.167137. PMID: 26692604; PMCID: PMC4660552.
3. Jain A, Mendiratta V, Chander R. Current status of acquired syphilis: A hospital-based 5-year study. *Indian J Sex Transm Dis AIDS*. 2012 Jan;33(1):32-4. doi: 10.4103/0253-7184.93814. PMID: 22529451; PMCID: PMC3326846.
4. Bingham JS. Historical Aspects of Sexually Transmitted Infections. In: Somesh Gupta, Bhushan Kumar. *Sexually Transmitted Infections*, 2nd ed. New Delhi: Elsevier publishers; 2012: 12.
5. Ray K, Bala M, Gupta SM, Khunger N, Puri P, Muralidhar S, et al. Changing trends in sexually transmitted disease in a regional STD centre in north India. *Indian J Med Res*. 2006;124:559
6. Gosavi AP, Chavan RB, Bandhade A, Kundale DR. Clinicodemographic profile of syphilis with rising trends at a tertiary care hospital: The tip of the iceberg. *Indian J Sex Transm Dis* 2021;42:171-4.
7. Nishal PK, Kapoor A, Jain VK, Dayal S, Aggarwal K. Changing trends in acquired syphilis at a Tertiary Care Center of North India. *Indian J Sex Transm Dis*. 2015; 36:14953.
8. Simms I, Fenton KA, Ashton M, Turner KM, Crawley-Boevey EE, Gorton R, et al. The re-emergence of syphilis in the United Kingdom: The new epidemic phases. *SexTransm Dis*. 2005;32:220-6.
9. Gangwar P, Jhinwal A, Gupta P, Dixit E, Bajaj S. An observational study of clinical profile and outcome of syphilis infection during pregnancy in the tertiary care center. *Int J Reprod Contracept Obstet Gynecol* 2020;9:3408-11.
10. Kar HH. Incidence of secondary syphilis on a rise and need for a separate flow chart for its syndromic management. *Indian J Sex Trans Dis*. 2004;25:22-5.