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Upsurge In Syphilis Cases- An Alarm Study at Tertiary Care Centre

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Abstract

Background: *Studies from different developed countries & south-east Asian countries revealed sudden increase in syphilis cases in the last decade especially in MSMs. Reports in India showed increase in latent syphilis cases.*

Aims and objectives:

1.To Know the prevalence of syphilis and its sub-types

2.To know its relationship to sexual practices and occurrence of syphilis

Methodology: *All patients attending DVL OP with H/O sexual contact interviewed and examined. Those cases with syphilis, their age, sex, domicile, duration, type of sexual behaviour ,treatment taken noted. Any h/o Miscarriages, still-births noted. Blood RPR &TPHA, HIV screening, HBsAg, HCV, CBP, LFT, DF, Gram stain were done. Results tabulated and analysed.*

Results: *During the study [August 2016 to July 2018]* ***1,40,024*** *patients visited DVL OPD****, 4082*** *had STI; of these,* ***30/114*** *had* ***primary chancre****,* ***32/114*** *had* ***secondary syphilis*** *,****62/114*** *had latent syphilis. Palmo-plantar rash & lymphadenopathy seen in most cases of secondary syphilis;* ***19*** *pregnant women had syphilis clinically or serologically &* ***18*** *were treated.* ***14*** *had associated HIV reactivity,* ***08*** *had* ***lata*** *lesions,* ***06*** *had persistent primary chancre into secondary syphilis stage,* ***32*** *had admitted MSM activity. None of the babies born to RPR reactive mothers had evidence of congenital syphilis*

Conclusion: *Compared to a decade before, a greater number of syphilis cases are seen now. Latent syphilis cases commonly reported. Most of secondary syphilis cases had MSM activity and some of them associated with HIV disease.*

Key Words: Syphilis Upsurge Latent syphilis MSM HIV Pregnancy

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I. Introduction

Sexually transmitted infections (nearly 30) are still a major public health problem with a lot of morbidity, rarely mortality. Ulcerative STI increase the acquisition and transmission of HIV 3-10 times, syphilis caused by Treponema pallidum, a great imitator, named as GREAT POX, in pre-penicilline era. These cases showed downtrend after 1980 till 2000. Many reports in western literature gave indications of increased syphilitic infections especially in MSMs and in association with HIV.

GLOBAL SCENARIO OF STI

When we look at global scenario of STI, WHO reported more of viral infections (500 million), trichomonas (143 million) and chlamydial (131 million) & 78 million were gonococcal in that order. **Syphilis accounted for 5.6 million cases**. 5% MSMs had syphilis in 2016-2017. It is estimated that **one million STI cases occur every day worldwide** depicting the magnitude of the problem.

INDIAN STATISTICS

In India, it is estimated that around 6% of adult population are having STI, treatment for 90 lakhs episodes of STI was planned by NACO in 2017-2018. HIV prevalence was around 0.21%and 21.17 lakhs people living with HIV in India. RPR positivity was around 0.4% in ICTC and 0.4% in antenatal clinics as per NACO.

AIMS

1 To know the prevalence of syphilis and its subtypes

2 To know its relationship to sexual practices and occurance of syphilis

In this background, the present study was taken up to look at the presentation and prevalence of syphilis and to see any relationship between current sexual practices and occurrence of syphilis.

II. Methodology

This is a 2-year study done in STI clinic of a tertiary care hospital a prospective observational study. All the patients attending STI clinic were interviewed, examined clinically and appropriate investigations were done after taking oral consent. Those who have taken treatment before attending hospital were excluded from the study. All patients attending DVL OP with H/O sexual contact interviewed and examined. Those cases with syphilis, their age, sex, domicile, duration, type of sexual behaviour, treatment taken noted. Any h/o Miscarriages, still-births noted. Blood RPR &TPHA, HIV screening, HBsAg, HCV, CBP, LFT, DF, Gram stain were done. Results tabulated and analysed.

III. Results

Out of 1,40,024 patients attending DVL OPD,4082(2.91%) had STI. 114(2.79%) of these had syphilis 2 males and 2 females below 17 years had syphilis. Majority 103 (90.39%)were in the age group of 18-40, sexually active age group which corresponds to other studies, more commonly seen in males than females. (table no 1).Majority of patients admitted to pre or extramarital sexual contact. 280 (12.11%)adult males and 11children (**19.6%)**with STI have admitted to indulging in homosexual (MSM) activity either active or passive partners(table no 2**). 30 had primary chancre, 32 had secondary syphilis.62/114(54.3%) accounted for infectious syphilis, a public health importance** .22 pregnant women had syphilis,19 of them with latent form,14 had HIV with syphilis, of these 10 cases had homosexual or bisexual activity. (table no 3)

Among the secondary syphilis cases, all cases had palmo-plantar rash and in some cases that was the only manifestation of rash. 16/32(50%)showed multiple manifestations. 8 cases (25%) had **condyloma lata** lesions,**43.75% had HIV association and 40% of these admitted to homosexual activity**.(table no 4) RPR and TPHA activity was 50-60% in primary syphilis and 100% in secondary syphilis. All cases of HIV and syphilis showed 100% reactivity. RPR reactivity ranged from 1:8 to 1:256 dilutions. (table no 5)

All cases of primary and secondary syphilis treated with single dose of benzathine penicilliin 2.4 M. U, I.M in gluteal region after test dose. Cases with HIV association were given 3 doses at weekly intervals and pregnant women with syphilis were given 2 doses as per NACO guidelines, all pregnant women with syphilis were followed up post-delivery, none of the babies showed clinical /serological evidence of congenital syphilis. RPR became non-reactive in 3-6 months post treatment in **point of care follow up.**

Table no.1 STI and Syphilis cases- Age and Sex wise distribution

S.NO	AGE GROUP	MALES		FEMALES	
		TOTAL STI	SYPHILIS	TOTAL STI	SYPHILIS
1	<18YR	56	02	38	02
2	18-24	821	47	638	23
3	25-40	1028	28	912	05
4	41-50	305	04	104	01
5	51-60	116	02	22	-0-
6	61-70	42	-0-	-0-	-0-

S.NO	Type OF SEXUAL Contact	MALES		FEMALES		CHILDREN	
		UNMARRIED	MARRIED	UNMARRIED	MARRIED	MALES	FEMALES
1	DENIED HISTORY OF SEXUAL CONTACT	256	189	20	1618	42	25
2	PRE or EXTRA MARITAL CONTACT	848	1017	02	14	16	05
3	HETEROSEXUAL	942	1088	02	14	07	05
4	HOMOSEXUAL (MSM)/BISEXUAL	162	118	-0-	-0-	11	-0-

Table no 2 - Distribution of STI cases based on type of sexual contact

S.NO	TYPE OF SYPHILIS	MALES		FEMALES		CHILDREN	
		UNMARRIED	MARRIED	UNMARRIED	MARRIED	MALES	FEMALES
1	PRIMARY CHANCRE	13	12	-0-	4	1	0
2	SECONDARY SYPHILIS	11	14	-0-	6	0	1
3	LATENT SYPHILIS	06	25	-0-	19	1	1
4	TERTIARY SYPHILIS	0	0	0	0	0	0

5	SYPHILIS WITH PREGNANCY	NA	NA	-0-	22	0	0
6	SYPHILIS WITH HIV	03	09	-0-	02	0	0

TABLE NO 3 – DISTRIBUTION OF SYPHILITIC CASES AGE WISE

S.NO	TYPE OF MANIFESTATIONS	MALES (17)		FEMALES (04)		WITH HIV (10)	
		UNMARRIED	MARRIED	UNMARRIED	MARRIED	MALES	FEMALES
1	Skin rash	07	09	0	04	08	02
2	Generalized rash	04	05	0	01	04	02
3	Palmoplantar rash	07	09	0	04	08	02
4	Condylomatalata	01	03	0	02	01	01
5	Generalised lymph adenopathy	05	06	0	02	06	02
6	Arthralgia	03	05	0	02	05	01
7	Mucosal/oral lesions	02	04	0	01	04	0
8	Multiple manifestations	03	05	0	02	05	01

Table no 4- Distribution of cases based on secondary syphilis manifestations.

TYPE OF SYPHILIS	RPR	TPHA	HIV SCREENING
Primary chancre	20	18	0
Secondary syphilis	32	32	10
Latent syphilis	52	52	02
Syphilis with pregancy	22	22	0
Syphilis with hiv	14	14	14

Table NO 4- DISTRIBUTION OF CASES BASED ON SERUM REACTIVITY

Fig no 1- primary chancre

fig no 2- primary chancre

Secondary syphilis manifestations

Fig no 3

fig no 4

fig no 5

Fig no 6

fig no 7

fig no 8

IV. Discussion

Syphilis "the great imitator" was defined by Stokes as an infectious disease caused by *Treponema pallidum*, systemic from the outset, characterized by florid manifestations on the one hand and years of complete asymptomatic latency on the other, capable of involving practically every organ in its course, simulating almost every disease in the field of medicine and surgery, transmissible to the offspring in man, transmissible to certain laboratory animals, and treatable to the point of presumptive cure(Morton RS et al, Thin RN. Et al ,Sanchez Met al)

In our study, **majority of cases(101 - 88%) clustered around 21-40 years of age.** This clustering of cases is mainly due to the high sexual activity in the group. Most of the patients were males(85; 74%) which is also in agreement with other studies observed by Anand BH et al from Bengaluru 75%and 25%,Arpitha Jain etal as 70% and 60% observed respectively 30% respectively Of the males , 848unmarried and 1017 married had extramarital contact respectively

Viral infections are dominating the Sexually transmitted diseases (STD) worldwide today, but the prevalence of syphilis has shown a rise in recent years in India. Various studies have shown a rise in the prevalence of syphilis in recent years in India(Ray et al) as well as in the Western countries. (SCHUMACHER, et al, global strategies)

Syphilis cases accounted for 2.7% in our study, increased number of cases were seen when compared to the past decade, 54.39% were of infectious syphilis type,45.61% had latent syphilis.

Primary syphilis presented most commonly as the classical single indurated, painless genital chancre in 30 cases .In secondary syphilis, patients presented most commonly with non-itchy maculo-papular rash this was followed by palmoplantar rash and lymphadenopathy. This was comparable to the other studies done by Ameeta E Singh et al ,Arpitha Jain et al. 22 pregnant women referred for syphilis problem were successfully treated without any evidence of congenital syphilis in the follow up. **Of the14 PLHAs having syphilis, 10 had secondary syphilis, 3 of them had persistent primary chancre.**

One congenital syphilis baby, a 3-month-old female baby was seen in this study, whose mother did not attend any antenatal check-up. Partner treatment was undertaken to all those patients with syphilis.

Thus, the epidemiological trends of syphilis have changed over the years. Latent syphilis is on the rise and is becoming more common than primary or secondary syphilis. The possibility of BFPs should alert the physician about alternate diagnosis and prompts the confirmation of VDRL tests by TPHA wherever possible. Awareness and health care seeking behaviour have to be promoted among the public especially in women. The importance of such studies thus lies in monitoring the epidemiologic trends of disease and facilitate planning better prevention and control measures.

V. Conclusions

More no of infectious syphilis is of public health importance, so should be looked for, diagnosed and treated. Secondary syphilis can present in atypical fashion especially in PLHAs. MSM activity and HIV association more commonly associated with infectious syphilis, hence should be sought for and partner treatment given. This will break the chain of transmission of infectious syphilis.

References

[1]. Morton RS. The treponemas. In: Rook A, Wilkinson DS, Ebling FJ, Champion RH, editors. Textbook of Dermatology. 4th ed. London: Blackwell; 1986. pp. 839–83.

[2]. Thin RN. Early syphilis in the adult. In: Holmes KK, Mardh PA, Sparling PF, Wiesner PJ, editors. Sexually Transmitted Diseases. 2nd ed. New York: McGraw-Hill; 1990. pp. 221–30

[3]. Sanchez M, Luger AF. Syphilis. In: Fitzpatric TB, Eisen AZ, Wolff K, Freedberg IM, Austen FK, editor

[4]. Dhawan J, Khandpur S. Emerging trends in viral sexually transmitted infections in India. Indian J Dermatol Venereal Leprol. 2009;75:561–5.

[5]. *Changes in Demographics and Risk Behaviors of Persons with Early Syphilis Depending on Epidemic Phase* CHRISTINA M. SCHUMACHER, MHS,* JONATHAN ELLEN, MD,† AND ANNE M. ROMPALO, MD, SCM‡

[6]. Clinical Epidemiological Study of Secondary Syphilis - Current Scenario Dr.B.Udaya Kumar Dr.I.Jahnavi, Dr.S.B. Kavitha. K.Bhumesh Kumar Dr. Akashay

[7]. Anand BH, Vijaya D, Ravi R, Reddy RR. Study of genital lesions. Indian J DermatolVener Lepr.2003;69:126–8.

[8]. Arpita Jain, VibhuMendirattaand Ram ChanderCurrent status of acquired syphilis: A hospital-based 5-year study Indian J Sex ransm Dis. 2012 Jan-Jun; 33(1): 32–34

[9]. Global strategies for the prevention and control of Sexually transmitted infections 2006-2015 Geneva World Health Organization,2007 reproductive health/publications/rtis/9789241563475/Accessed 15th May/2014

[10]. Ameeta E Sing, Barbara Romanoski,Syphilis: Review with Emphasis on Clinical, Epidemiologic, and Some Biologic FeaturesClinMicrobiol Rev. 1999 Apr; 12(2): 187–209.

[11]. Arpita Jain, VibhuMendirattaand Ram ChanderCurrent status of acquired syphilis: A hospital-based 5-year study Indian J Sex Transm Dis. 2012 Jan-Jun; 33(1): 32–34

[12]. Cited as Dr K Gouthamisree, Prof. Dr Udayakumar "UPSURGE OF SYPHILIS- AN ALARM"

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