

Syphilis among sexually transmitted infections clinic attendees in a tertiary care institution: A retrospective data analysis

Sir,

Many recent studies have documented a resurgence of syphilis. Human immunodeficiency virus (HIV) infection and homosexual behavior are cited as the major risk factors.^[1]

In this scenario, we have made an attempt to study the epidemiology of syphilis among sexually transmitted infections (STI) clinic attendees of our institution during the past decade.

Case records of patients who attended the STI clinic of Our institution with syphilis (patients who had a Venereal Disease Research Laboratory [VDRL] titer 1:4 or more or a Treponema pallidum hemagglutination [TPHA] titer 1:80 or more or both) from January 1, 2003 to December 31, 2012 were reviewed.

Demographic data, clinical manifestations and investigation details of individual patients were collected from the case records and the study subjects were classified into prenatal, primary, secondary, early latent, tertiary (gummatous/cardiovascular/neurosyphilis) and late latent syphilis.

Asymptomatic patients with VDRL titer 1:4 or more were included in the study only if the infection was confirmed by a positive TPHA test and were categorized as latent syphilis. Asymptomatic patients, who were TPHA positive and VDRL non-reactive and who had documented evidence of adequate treatment for syphilis in the past were excluded from the study if they were not at high risk for re-infection.

Among the 2007 patients who attended our STI clinic during the study period, 113 (5.6% of the total) had syphilis. A steady decline was noted in the total number of STI patients over the 10 year period, but the later years of the study witnessed a rise in the number of syphilis cases.

There was a clear male predilection (male to female ratio was 1.9:1). The disease was almost equally prevalent in both sexes during the early years of the study but the later years documented a decline in number of affected females.

Nearly 80% (59/74) of affected males gave a history of extramarital or premarital sexual exposure. However, 66.7% (26/39) of females denied premarital or extramarital exposure, implying that the sole source of infection was their spouses.

All affected females were heterosexuals. Among males, 12 (16.2%) were homosexuals, 13 (17.6%) bisexuals (17.6%) and the rest heterosexuals. Thirteen of the 25 patients with homosexual or bisexual behavior had attended the outpatient department in the last 3 years of the study.

The majority of our patients (54/113, 47.8%) were diagnosed during a mandatory medical checkup

before going abroad. More than 90% belonged to the category of syphilis of unknown duration. Few cases of primary (2 patients), secondary (4 patients), early latent (1 patient), prenatal (1 patient), gummatous (1 patient) and neurosyphilis (2 patients) were also observed during the study period.

A total of eight patients had early infective stage disease. Seven of them were diagnosed during the last 3 years of the study. One of the patients with primary chancre who had co-existing HIV infection developed recurrence of chancre at the original site (chancre redux).

Common co-existing STIs observed were HIV infection (10 patients) and recurrent herpes genitalis produced by herpes simplex type 2 virus (confirmed by positive immunoglobulin M and immunoglobulin G enzyme-linked immunosorbent assay in eight patients). Four patients had coexistence of herpes genitalis, syphilis and HIV infection and one had hepatitis B infection in addition to syphilis, herpes genitalis and HIV infection.

Eight of the 10 patients with co-existing HIV infection sought medical advice during the last 5 years of the study. Two of them had early infective syphilis.

The decline noted in the total number of STI patients over the past decade could be attributed to better treatment facilities available at the peripheral centers. Applying Chi-square test, the increase observed in syphilis cases was found to be statistically insignificant.

The marked male predilection noted in the latter half of study could be due to the increase in homosexual and bisexual behavior among the affected males.

The preponderance of latent syphilis observed in our study was also noted by others.^[1,2] Widespread use of penicillins and cephalosporins for common infections render a partial cure in early syphilis.^[3] These patients may remain as late latent syphilis cases. Many years after infection, VDRL can become nonreactive even in untreated or inadequately treated patients. An immunodeficiency state like HIV infection can place these inadequately treated patients at risk for reactivation. Hence, all patients with a positive TPHA who had not received adequate treatment for syphilis were treated as late latent syphilis.

Two disturbing findings documented were the rise in cases of infective syphilis and HIV co-existing with syphilis in recent years. The co-existence of ulcerative STIs in the HIV infected can facilitate the transmission of HIV and vice versa. Three patients manifested herpes genitalis lesions within 6 months of starting highly active anti-retroviral therapy (HAART). Two others developed primary chancre and secondary syphilis respectively within 8 months of HAART. Probably, the STIs manifested as immune reconstitution inflammatory syndromes.

The dependence on the facts recorded by different dermatologists over a period of 10 years and our inability to assess the treatment response were the major study limitations.

The rising prevalence of early syphilis warrants measures to curtail disease transmission.

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REFERENCES

- Muldoon E, Mulcahy F. Syphilis resurgence in Dublin, Ireland. *Int J STD AIDS* 2011;22:493-7.
- Devi SA, Vetrichevvel TP, Pise GA, Thappa DM. Pattern of sexually transmitted infections in a tertiary care centre at Pudukcherry. *Indian J Dermatol* 2009;54:347-9.
- Narayanan B. A retrospective study of the pattern of sexually transmitted diseases during a ten-year period. *Indian J Dermatol Venereol Leprol* 2005;71:333-7.

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