



PATTERN OF SEXUALLY TRANSMITTED DISEASES AT STD CLINIC OF TEACHING HOSPITAL IN SOUTH RAJASTHAN

Dermatology

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ABSTRACT

Background: Sexually transmitted diseases (STDs) form a major public health issue globally. STDs are frequently more common than other non STD infections amongst the sexually active population. These infections have distinct epidemiological profile than non STDs.

Aims & Objectives: To know the incidence and prevalence of STDs in both HIV infective and non HIV infective individuals.

Materials and Methods: All the patients attending the STD clinic of a teaching hospital in south Rajasthan from January 2010 to December 2015 were studied. Data regarding demographic details, clinical features and investigations were recorded and analyzed. Appropriate treatment was advised according to NACO guidelines

Results: A total of 9251 patients reported to STD clinic of our department from January 2010 to December 2015. Out of these 6207 (67.09%) were males and 3044(32.91%) were females with M:F ratio of 2:1. Among ulcerative STDs, herpes genitalis remains most common. Among non ulcerative STDs, candidal balanoposthitis in men and candidal vulvovaginitis in females were the most common. Increased HIV seropositivity was seen with ulcerative STDs, however there was no significant change observed in HIV positivity rates in STD patients during recent years.

Conclusion: A Viral STDs form the bulk of STD infection among both ulcerative and non ulcerative group, however a rise in cases of syphilitic ulcer was observed in recent years. The persistent and recurrent nature of viral infections along with rise in syphilitic cases raises awareness for changing trend of the current STI scenario. In order to know the incidence and prevalence of STIs and HIV, we need to impart health education and counselling, and improve the standards of health care facilities with focus on various preventive methods.

KEYWORDS

Epidemiology; Sexually transmitted diseases (STDs); HIV infection; STD clinic; Trends

INTRODUCTION:

Sexually transmitted diseases (STDs) are defined by constellation of infections and syndromes that are epidemiologically heterogeneous but all of which are almost always or at least often transmitted sexually.[1] The trend of STD varies in different parts of the country. A systematic, regional, periodic synopsis of the prevalence of STDs among STD clinic attendees would not only help to study the changing trends of STDs, but also to assess the effectiveness of control programs. During the past decade, there is overwhelming evidence that both ulcerative and nonulcerative STDs promote HIV transmission[2]. However, changes in social behavior have altered the pattern of STIs, with certain STIs getting stabilized while others showing downward or upward trends. There are only a few studies on epidemiology and changing scenario of STD in Indian literature. Therefore this study was planned to assess the changing trend of STD at our centre.

MATERIAL AND METHODS:

All the patients attending the STD clinic at dermatology OPD of teaching Hospital in South Rajasthan during 6 years from January 2010 to December 2015 were the subject of this study. Data regarding demographic details, clinical features and relevant investigations were recorded and analysed. The diagnosis was made by a dermatologist based on clinical history, examination, and relevant laboratory investigations. For comparative analysis STDs were further classified into ulcerative and non ulcerative group.

Counselling regarding the risk involved in unprotected sexual contact, vulnerability to acquire HIV infection in presence of other STIs, need for partner management, use of condoms, adherence to treatment,

regular follow up and stress management was done by STI counsellor in all the patients.

RESULTS

A total of 9251 patients with STDs attended the STD Clinic. Out of these 6207 (67.09%) were males and 3044(32.91%) females; M:F ratio being 2:1. The age of patients ranged from 15 to 70 years. Majority (5518; 59.44%) of patients of either gender belonged to 25 - 44 years age group followed by more than 44 years age group in males and 20-24 year in females (Table -1)

The index study showed an increase in number of patients from 2010 to 2014 followed by a decrease in 2015 (Fig 1). There was increase in number of female patient from year 2012 to 2015 (479 in 2012 v/s 675 in 2015). Number of male patient also increases from 2010 to 2013 (913 in 2010 v/s 1153 in 2013) followed by decline in 2014 and 2015. (Table 1, Fig.2)

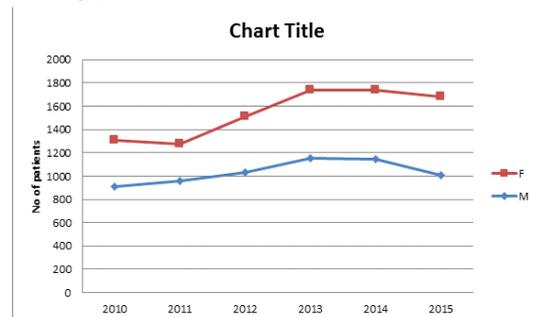


FIG-1

TABLE-1 YEARWISE AND GENDERWISE DISTRIBUTION OF STD PATIENTS

| Year | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | Total | | GT |
|--------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|------|------|
| Age in years | M | F | M | F | M | F | M | F | M | F | M | F | M | F | |
| <20 | 55 | 30 | 49 | 29 | 54 | 45 | 79 | 25 | 69 | 31 | 55 | 30 | 361 | 190 | 551 |
| 20-24 | 126 | 43 | 134 | 49 | 160 | 82 | 191 | 21 | 166 | 110 | 157 | 120 | 934 | 425 | 1359 |
| 25-44 | 500 | 296 | 952 | 204 | 585 | 292 | 620 | 463 | 661 | 351 | 578 | 416 | 3496 | 2022 | 5518 |
| >44 | 232 | 25 | 225 | 36 | 232 | 60 | 263 | 77 | 247 | 100 | 217 | 109 | 1416 | 407 | 1823 |
| Total | 913 | 394 | 960 | 318 | 1031 | 479 | 1153 | 586 | 1143 | 592 | 1007 | 675 | 6213 | 3044 | 9251 |

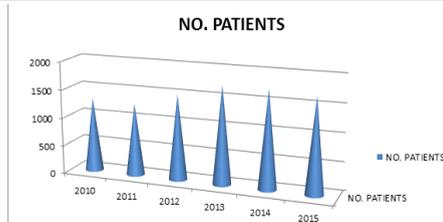


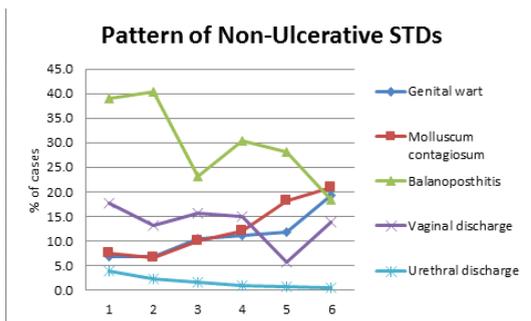
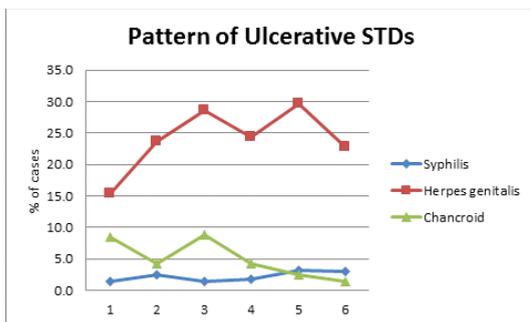
Fig-2

Among non ulcerative STDs , candidal balanoposthitis (2704 , 29.22%) and candida vaginitis(1227,13.26%) were the most common in male and female respectively. Among ulcerative group in both male and female patients most common STD was genital herpes (1646,17.8%) (607,6.56%) respectively and the least common wassyphilis (114, 1.23%) (98, 1.06%) respectively (Table 2,3).No patient presented with lymphogranuloma venerum in whole study period.

Out of total Urethritis cases (143), gonococcal urethritis as demonstrated by gram staining constituted 62.93%(90) cases.

TABLE-2 YEARWISE AND GENDERWISE DISTRIBUTION OF PATTERN OF STI PATIENTS

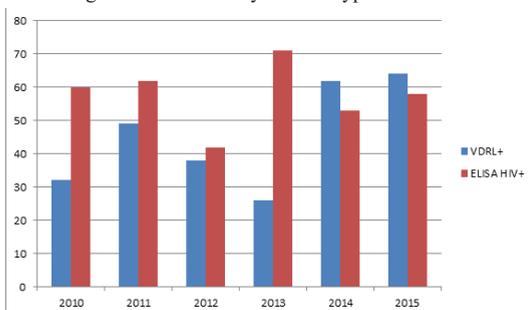
| Year | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | Total | | GT |
|-----------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|-------|------|------|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | |
| Syphilis | 8 | 10 | 18 | 15 | 15 | 8 | 15 | 17 | 30 | 26 | 28 | 22 | 114 | 98 | 212 |
| Herpes genitalis | 156 | 44 | 229 | 74 | 317 | 114 | 296 | 128 | 363 | 150 | 285 | 97 | 1649 | 607 | 2253 |
| Chancroid | 60 | 50 | 18 | 37 | 82 | 51 | 46 | 27 | 14 | 29 | 15 | 10 | 235 | 204 | 439 |
| Genital wart | 65 | 25 | 73 | 15 | 123 | 36 | 130 | 64 | 97 | 109 | 201 | 122 | 689 | 371 | 1060 |
| Molluscum contagiosum | 64 | 33 | 76 | 10 | 118 | 34 | 119 | 91 | 137 | 178 | 162 | 191 | 676 | 537 | 1213 |
| Balanoposthitis | 510 | | 516 | | 350 | | 530 | | 489 | | 309 | | 2704 | | 2704 |
| Vaginal discharge | | 232 | | 167 | | 236 | | 259 | | 100 | | 233 | | 1227 | 1227 |
| Urethral discharge | 50 | | 30 | | 26 | | 17 | | 13 | | 7 | | 143 | | 143 |
| Total | 913 | 394 | 960 | 318 | 1031 | 479 | 1153 | 586 | 1143 | 592 | 1007 | 675 | 6207 | 3044 | 9251 |



There was increase in the number of primary syphilis cases in the last 2 years (2014-2015) compared to previous 4 years (2010 -2013) (Table 2, Fig 3).

Among viral STD , there is rapid rise in cases of herpes genitalis, genital warts and molluscum contagiosum cases from 2012 onwards. There is rapid fall in number of cases of chancroid in last two years(2014-2015).

There was an increase in VDRL positive rate in 2014 and 2015 (Fig-4). Out of total (271) VDRL positive cases ,212had primary chancere and remaining 59 were secondary cases of syphilis



All the patients attending the STI clinic were investigated for HIV serology . A total of 346 patients were found to be positive for HIV serology ,out of these 250 were newly diagnosed and remaining 96 cases were already on antiretroviral treatment and were referred to STI clinic for genital lesions. HIV seropositivity was more common in patients who presented with ulcerative STDs (225,65%)

The predominant mode of contact was heterosexual (87.2%) followed by bisexual (8.6%), and homosexual (4.2%) .

A history of unprotected sexual intercourse with commercial sex worker (CSW) was in 40% of the patients.

DISCUSSION

During the study period of 6 years males attending the STD clinic outnumbered the female patients , but there is a gradual trend toward an increase in female attendees like other studies.[5,6] This change is reflected in the male: female ratio dropping from 2.3:1 in 2010 to 1.5:1 in 2015. This could be attributed to improved health care-seeking behavior in women, increasing female literacy rate, effective contact tracing and spouse screening. Majority of cases were in the peak reproductive age group of 25-44 years, which is in concordance with others also.[8, 9]

Like other reports[12-14,18] among ulcerative STD, herpes genitalis (24.35%) was the commonest ulcerative STD observed while in non ulcerative group, candidal balanoposthitis (29.23%) was most common .

Genital warts showed lower incidence (11.46%)as compare to studies by Kumari et al(19.35%) and Aggarwal et al (19.35%) with an increasing trend over the years .[14,15] This denotes an increasing trend of infections due to virus aetiology as compared to bacteria.Marked decline in bacterial STDs, resulting in an apparent increase of the viral STIs, has been reported from various India studies.[11,13,14,16]

Viral infections tend to persist or recur necessitating repeated consultations. The recurrent and unremitting symptoms of viral STIs coupled with media propaganda of HIV and AIDS prompted these patients to report to a higher centre for treatment and voluntary testing to rule out HIV disease

General trend of decrease in bacterial STIs could be attributed to the syndromic treatment of STIs by peripheral health workers and private practitioners along with widespread use of broad spectrum antibiotics for other illnesses.Interestingly incidence of primary syphilis cases significantly increased in last two years (2014-2015). This resurgence of syphilis also has been observed by various other epidemiological studies [4,7,10,11]

Most of the studies showing a constant or a rising prevalence of syphilis have shown an actual increase in the secondary stage of presentation.[2,4] Contrary to this, in our study majority of the patients

presented in primary stage (212) followed by latent stage disease (59) which is further supported by increased VDRL positivity rates (9.12%) among which 78.3% cases are primary and 21.7% in secondary stage.

Both ulcerative and non-ulcerative STDs promote HIV transmission by augmenting infectiousness and HIV susceptibility via different biological mechanism.²⁰ Many studies from different regions of India show gradual but increasing prevalence of HIV infection among STD clinic attendees.^{12,14} The prevalence was found higher among ulcerative STDs than in non ulcerative STD patients. In our study also most common presentation associated among HIV patient was ulcerative STIs (65%).

A comprehensive study of the epidemiological data is very important to identify the pattern of STDs for preventive and control measures to curb these infections by the government and non-government organizations. In order to decrease the incidence and prevalence of STDs and HIV we need to further impart health education, counseling and ensure regular follow up of the patients and their partners and improve the standards of health care facilities.

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