A Clinico-Epidemiological Study of Sexually Transmitted Infections in Males at a Tertiary Care Centre

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ABSTRACT

Background: Sexually Transmitted Infections (STI) are more dynamic than other infections prevailing, particularly in this HIV era. This epidemiological profile varies even from one region to another within a country, depending upon the ethnographic, demographic, socioeconomic and health factors. In our society males are common visitors to STI clinic than females. **Material & Methods:** A retrospective study of four years of males attending the STI clinic at a tertiary care centre was conducted. Detailed history, thorough clinical examination, HIV and RPR testing was done in all the cases. **Results:** Of all the patients presenting to the Skin OPD, 924 males were diagnosed to have STI. Most common age group was 25-44 years (64.56%) and majority of them were married (68.98%) involving in occupation of agricultural-works (35.40%). Among the ulcerative group, herpes genitalis was the most common STD (56.71%) followed by syphilis (2.38%), GI (0.54%), LGV (0.33%) and chancroid (0.22%). Genital-warts (19.37%) and molluscum contagiosum (13.20%) comprised non-ulcerative group. In urethritis group, gonococcal and non-gonococcal urethritis was reported in 3.68% and 3.57% cases respectively. Partner management was done in (58.02%) cases. **Conclusion:** Low education, ignorance about STIs including HIV, poor usage of barrier contraception and early age of sexual debut are collectively responsible for increased incidence of STIs. HIV and STI are perfect examples of epidemiological synergy as they facilitate each other's transmission.

Key words: Sexually Transmitted Infections, Herpes Genitalis, HIV, Genital ulcer.

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INTRODUCTION

Sexually transmitted Infections (STIs) are loosely defined as constellation of infections and syndromes that are epidemiologically heterogeneous but all of which are almost always or atleast often transmitted sexually.[1] STIs are more dynamic than other infections prevailing in the community, particularly in this HIV era. Their epidemiological profile varies from country to country and from one region to another within a country, depending upon the ethnographic, demographic, socioeconomic and health factors.[2] In our society, males are common visitors to STI clinic than females, who are generally traced as contacts.[3] This may be due to the asymptomatic nature of infections in females, social stigma associated with STI, lower literacy standard, lower awareness of need of availing medical facilities or their frequent

consultation in the gynaecological clinics instead of STI clinics. Thus, it all leads to an increase in the reservoir of infection. The present study was undertaken with the aim to study the clinico-epidemiological profile of sexually transmitted infections in males at a tertiary care centre of the Gujarat.

MATERIAL AND METHODS :

This retrospective study was carried out in the department of Dermatology at PDU Medical College, Rajkot, Gujarat after taking the due permission from the Institutional Ethical Committee. All cases attending to the OPD during the period of 4 years duration were observed and out of them 924 cases of Male patients attending the STI Clinics were selected for the present study. In all cases detailed history including patient's age, sex, occupation, caste and spouse history were taken and thorough clinical examinations was done with relevant investigations to ensure the diagnosis including HIV, RPR, grams stain, giemsa stain, KOH smear, wet mount. Inguinal, femoral, epitrochlear, cervical and axillary lymph nodes were palpated and corresponding findings were recorded. Each and every patient were informed and educated about the disease, its management and prognosis. All the patients were counselled about risk involved in unprotected sexual intercourse, risk of HIV transmission in the presence of other STIs, importance of partner treatment and use of barrier contraception. Partner identification and condom promotion were also done and the treatment was provided to the patient as per NACO's guidelines. The data were collected, analyzed and compared with the data of other authors.

RESULTS:

Of all the patients attending the tertiary care centre for a period of four years, 924 male patients attended the STI clinic at our study center. Among them 601 patients (65.04%) belonged to the age group of 25-40 years, followed by 169 patients (18.29%) to 15-24 years of age group. Married patients 644 (69.7%) outnumber the unmarried patients 240 (25.97%). Most of the patients were from low socioeconomic class (85%) with farm labourers 252 (27.28%) and factory workers 219 (23.7%) being the most common occupation among them. Maximum number of the patients had education upto primary level (56%), followed by secondary level (27%). Herpes genitalis 518 (56.06%) (Figure-1) was the most common sexually transmitted disease followed by Genital warts 179 (19.37%) (Figure-2), Molloscum contagiosum 122 (13.2%), Gonococcal urethritis 34 (3.68%) (Figure-3), Non-gonococcal urethritis 33 (3.57%), Syphilis 22 (2.38%) (Figure-4), Granuloma inguinale 5 (0.54%) (Figure-5), Lymphogranuloma venereum 3 (0.33%), Chancroid 2 (0.22%) (Figure-6) and Mixed STI 6 (0.65 %) patients [Chart-1].

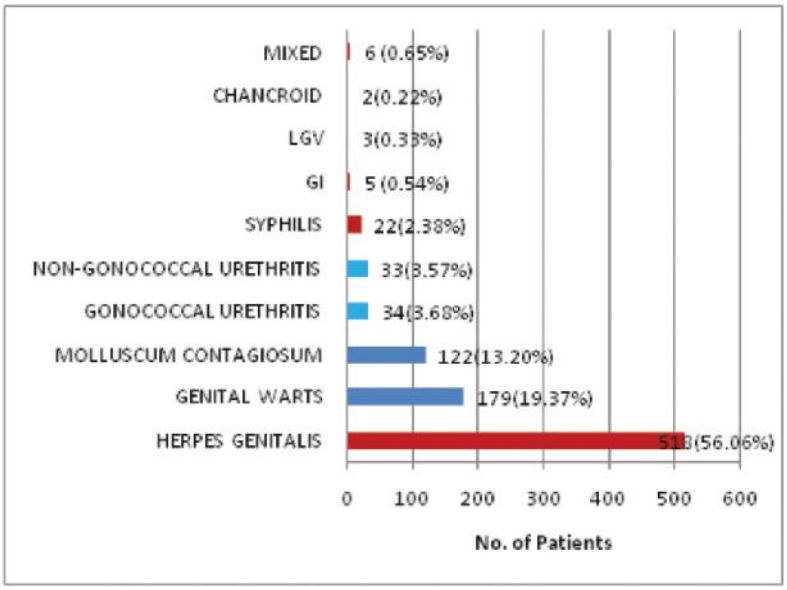

Chart 1: STI prevalence

The maximum patients were heterosexual 667 (72.19%) followed by homosexual 256 (27.71%) and bisexual 1 (0.19%). Most of the STD patients had multiple partners 667 (72.19%). The patients having sexual exposure without protection 553 (59.85%) outnumbered those with protection 371 (40.15%). [Chart-2]

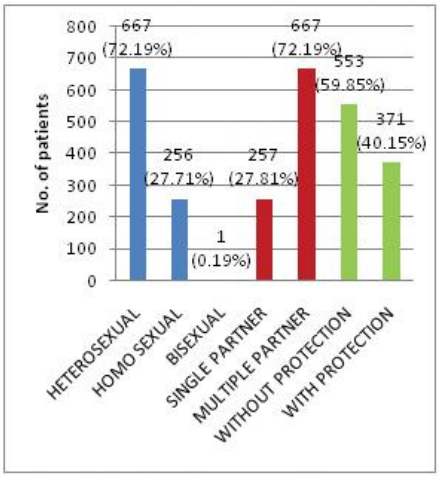

Chart 2: Sexual activity of the patients

Figure 2: Genital warts

Figure 3: Gonorrhoea

Figure 1: Herpes genitalis

Figure 4: Annular syphylide on palms and soles in a patient with secondary syphilis

Figure 5: Granuloma Ingiunale

Among all the patients, 180 patients (19.48%) were HIV seropositive and 33 patients (3.57%) were RPR reactive. HIV seropositivity 128 (71.11%) and RPR reactivity 19 (57.58%) was most commonly associated with the age group of 25-40 years. Herpes genitalis was the most common STI associated with HIV seropositivity 147 (81.67%) and RPR reactivity was maximum seen in the patients with Syphilis 22 (66.67%).

DISCUSSION:

There was a gradual decline in the occurrence of new STI cases, a common observation in all the health facilities.[2] The patients probably reported more to the private practitioners, expecting more confidentiality in dealing with these diseases. In the present study, most of the patients (65.04%) belonged to the age group of 25-40 years as this is the age group where the sexual activity is at its peak and tendency to seek multiple sexual partners is very high and also ignorance prevails about sexually transmitted diseases including HIV/AIDS. This is also the predominant age group observed to be having STI in other such Indian studies.[6,7,8,9,10]

In the present study, 69.7% patients were married as compared to a study done by Kavina et al,[4] which indicates that the married persons get indulged in extramarital sexual activity and acquire STI from there. STI being higher in married individuals further underlines the importance of contact tracing, counselling, and prompt management of the partners. People of lower socioeconomic class (85%) were more commonly affected with STI, which is almost similar (83.34%) to the observations of Nayyar et al.[5] This indicates that the people belonging to the lower socioeconomic class lacks knowledge of modes of transmission of STIs. Among all the males with STI, 27.28% and 23.7% were farm labourers and factory workers respectively. Labourers are sometimes required to stay away from their families for long period and get involved in promiscuous behaviour. This indicates that they are acting as a link population and spreading the disease in general population. Among all the patients, 56% patients were having education below primary level. This imparts that low literacy level is one of the factor for increasing the transmission of STI as such people are unaware of the STIs.

In the present study, Herpes genitalis (56.06 %) was the most common STI followed by Genital warts (19.37 %), Molluscum contagiosum (13.2 %) which is comparable to the study of Kavina et al,[4] Devi et al[6] and Jain et al.[7] As most of the viral STIs are symptomatic, most of the patients report promptly to the health center. The use of over the counter antibiotics and syndromic management at primary level had resulted in declined incidence of the bacterial STIs. Marked decline in the bacterial STIs, resulting in an apparent increase in of the viral STIs, has been reported from various Indian studies.[6,7,8,9,10] Among bacterial STIs, Gonococcal urethritis (3.68%) was most common followed by Non-gonococcal urethritis (3.57%), Syphilis (2.38%), Granuloma inguinale (0.54%), Lymphogranuloma venereum (0.33%) and Chancroid (0.22%). Among all the patients, 72.19% patients were heterosexual as compared to the study of Vora et al[8] (97%), Narayan et al[11] (95.9%) and Devi et al[6] (89.6 %). Proper counselling and developing a good rapport with the patient can aid in eliciting the exposure history of the STI patients because eliciting the exposure history is very important for contact tracing, diagnosing and giving treatment to the patients. Most of the patients had multiple sexual partners 72.19%, which is comparable to a study done by Nayyar et

al.[5] Sexual exposure with multiple partners leads to increased chance of acquiring the STIs. Most of the patients had sexual exposures without barrier protection 59.85%. Inconsistent and improper use of the barrier contraception may lead to acquisition of the STI which would have been prevented by just proper and regular use. HIV seropositivity among all the STI patients was seen in 19.48% in accordance with Nayyar et al,[5] (22.22%). Sexually transmitted infections act as a co-factor in HIV transmission by increasing susceptibility to HIV and RPR reactivity was seen in 3.57% patients.

CONCLUSION:

We conclude from the study that the viral STIs are an upsurge as compared to the bacterial STIs. Programs should be undertaken to make the rural people aware of the different types of STIs, their modes of acquisition, risk factors for the acquisition, preventive measures, etc. The training of the doctors at the primary health level should be undertaken for early diagnosis, proper treatment and preventive approach for to prevent the occurrence of the STIs. Emphasizing the education level of the rural population will be promising in decreasing the incidence of the STIs as low level of education if one of the factors for the lack of knowledge of the people about the STIs and the resultant acquisition of the same. Steps should be undertaken to find out the new preventive approaches for the viral STIs by the government.

Conflict of Interest: None.

Source of Funding: Nil.

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