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Hivseropositivity in Viral Std's

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Abstract: *Viral STD's are common STD's and their incidence has increased in the last two decades and has assumed major public health significance especially because of their association with HIV. Aim: Present study was under taken to know HIV seropositivity in patients with viral STD's attending OPD at tertiary care hospital. Patients were diagnosed clinically and followed by laboratory investigations including Tzanck smear where required. VDRL and ELISA were done in all patients. In a span of 8 months 126 cases of viral STD's, accounting for 8.4% of cases attending STD OP, were noted. These viral STD patients have seropositivity of 36.5%. Of these, viral STD's Recurrent Herpes genitalis is more common (57%), Genital Warts (24%) and Molluscum contagiosum (19%). Females presenting with viral STD's are more (58.7%) than males. Seropositivity of HIV is also high in females when compared to males.HIV seropositivity in viral STD is increasing and vice versa. The importance of viral STD's have been stressed in the recent years as they are also one of the important markers in HIV disease progression. Genital Herpes being the commonest viral STD and its synergistic effects with HIV can make it most threatening disease.*

Keywords: *Herpes genitalis,HIV,Seropositivity,Viral*

I. Introduction

STDs are highly prevalent in India, being placed 3rd among diseases by WHO, next only to malaria and pulmonary tuberculosis'. STIs impose an enormous burden of morbidity and mortality, both directly through their impact on reproductive and child health, and indirectly through their role in facilitating the sexual transmission of HIV infection[1,2].The greatest impact can be seen among women in whom severe complications include pelvic inflammatory disease, chronic pain, and adverse pregnancy outcomes (ectopic pregnancies, endometritis, spontaneous abortions, stillbirths and low birth weight). In both men and women, STIs play a major role in infertility. A growing number of malignancies are also attributed to STIs, notably cervical, anal and penile cancers as well as hepatocellular carcinoma. Congenital infections in the new-born include congenital syphilis, ophthalmia neonatorum and pneumonia.. STIs are more dynamic than other diseases prevailing in the community[3[.Viral STD'S are in an upward trend. The importance of viral STD'S are that they are one of the important markers in HIV disease progression and HSV-2 lesions with duration above one month are considered as AIDS defining illness by CDC[4].Viruses transmitted sexually are HIV, HSV, HPV, Hepatitis B, HTLV, Molluscum contagiosum virus, CMV, HHV8, EB virus. Of these herpes, warts and molluscum contagiosum manifest as lesions on genitilia. The commonest cause of genital ulceration worldwide is Herpes genitalis. The most common nonulcerative infection among the STDs is viral warts[5].

II. Materials and Methods

Present study was undertaken to know HIV seropositivity in patients with viral STD's attending DVL OPD at Government general hospital, Guntur. This is a prospective study conducted for a period of 8 months between November 2014 to July 2015. All patients with viral STD'S were studied. Viral STD's Herpes genitalis, Genital warts, Molluscum contagiosum comprised our study material. Patients were interviewed according to a standard proforma which mentioned the details about age, sex, occupation, marital status and sexual behaviour. Cases are diagnosed clinically and investigated where ever necessary. Patients who were diagnosed with viral STD's were screened and confirmed for HIV status. VDRL was done to exclude syphilis for all patients.

III. Results

Out of 1500 cases attending STD OPD, 65% (975) were female and 35% were male. 126 cases of viral STD'S were identified, comprised 8.5% of total cases of STD clinic. Male:female ratio of viral STD'S is 0.7: 1. Herpes genitalis (57%) is more common among viral STDs in patients attending STD clinic followed by viral warts(24%) and molluscum contagiosum (19%) (TABLE 1). Age group wise 47.6% were in age group of 25-34 years (TABLE 2).Majority of the patients were married (77%), followed by unmarried population(15%) and

widowed (8%). 24 males(46%) had a history of contact with commercial sex workers (core group). Other 28 male patients gave no history of contact other than spouse. 8% of females gave history multiple sex partners. 5% of females were at high risk with their spouses behaviour.

Out of 126 cases of viral STD'S 46 (36.5%) are coinfected with HIV. Of the 46 positive cases 30 were females and 16 were males with Male:Female ratio of 0.53 : 1. Majority of HIV co infected patients are of age group 25 -34 years (48%). In the HIV positive cases herpes genitalis is more common(61%), followed by warts(22%), and MC(17%) (TABLE3).

Table: 1

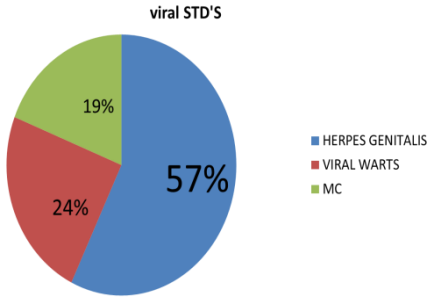


Table:2 Age wise distribution of viral STD's

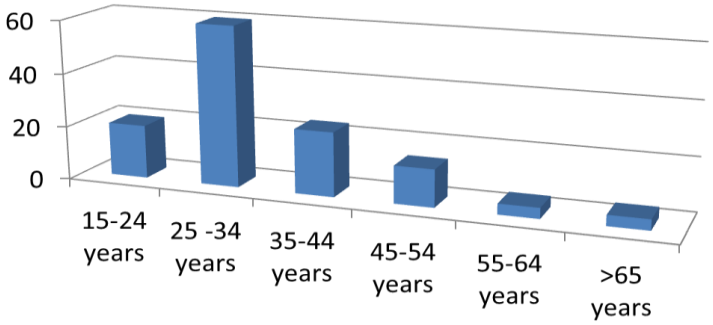
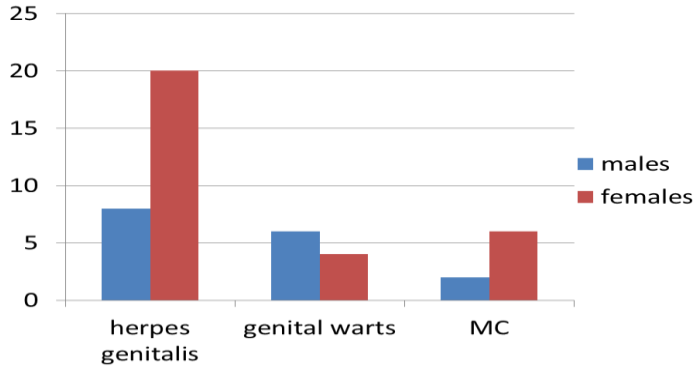


Table:3 Proportion of viral STD's in HIV seropositive Patients



IV. Discussion

Majority of the patients in this study belonged to 15 to 34 year sexually active age group. HIV seropositivity is also high in this age group. This is similar to other studies like Kavina Burzin et al[6]. Early age of sexual debut together with high risk behaviour increases the risk of acquiring STDs including HIV.

Majority were married as compared to unmarried. This enforces the need to target married population for counselling ,who can easily transmit STD and HIV to their spouses and children who constitute the general population.

History of contact with commercial sex workers was reported in 46% cases which is similar to other studies. This group constitute the bridge population. 8% of females gave h/o multiple sex partners (core group). Sexual behaviour pattern within a population influence the spread of sexually transmitted infections in that population[7]. Core groups appear to be important in the spread of sexually transmitted diseases and in their prevention (fig 1).In females 87% gave h/o of exposure with spouse only. This is the general population . They contact infection from their spouses (bridge population).

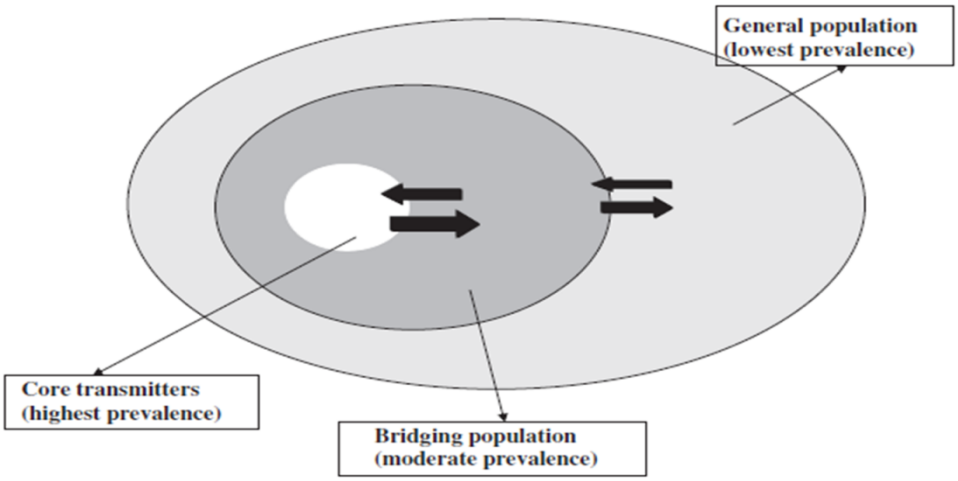


figure 1

HIV seropositivity in viral STD patients was noted as 36.5% in this study. In other studies by Maninder setia et al[8] reported as 33% and Kavina burzin as 16%.

Herpes genitalis was reported as commonest viral std -52 cases(57%) similar to other studies. Primary herpes genitalis is found in 14 cases. In HIV positive patients also herpes genitalis is more common. In HIV patients, presentation of herpes genitalis is an indirect indicator of immune status. Herpetic ulcers in HIV positive patients present as chronic, nonhealing, bizzare ulcers.(Fig 2,3) Genital herpes and HIV have synergistic effect. Patients with increased level of HSV especially type 2 are more susceptible to acquire HIV due to disruption of mucosal integrity, by recruitment and activation of HIV target cells such as the CD4 lymphocytes possibly by HIV taking advantage of CCR5 and CXCR 4 chemokine receptors[9].

figure 2: Herpes in immunocompetant

figure 3: Herpes in immunocompromised

Antiviral chemotherapy offers clinical benefits to most symptomatic patients and is the mainstay of management. Counseling regarding the natural history of genital herpes, sexual and perinatal transmission, and methods to reduce transmission is integral to clinical management. Systemic antiviral drugs can partially control the signs and symptoms of genital herpes when used to treat first clinical and recurrent episodes or when used as daily suppressive therapy. However, these drugs neither eradicate latent virus nor affect the risk, frequency, or severity of recurrences after the drug is discontinued. Three antiviral medications provide clinical benefit for genital herpes: acyclovir, valacyclovir, and famciclovir.(Table 3)

Table: 3 Treatment for primary Herpes Genitalis

Acyclovir 400 mg orally three times a day for 7–10 days OR **Acyclovir** 200 mg orally five times a day for 7–10 days OR **Valacyclovir** 1 g orally twice a day for 7–10 days OR **Famciclovir** 250 mg orally three times a day for 7–10 days
* Treatment can be extended if healing is incomplete after 10 days of therapy.

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Antiviral therapy for recurrent genital herpes can be administered either as suppressive therapy to reduce the frequency of recurrences or episodically to ameliorate or shorten the duration of lesions.(Table 4,5). Suppressive or episodic therapy with oral antiviral agents is effective in decreasing the clinical manifestations of HSV among persons with HIV infection (Table 6,7)

Table:4 Suppressive therapy for recurrent herpes genitalis

Acyclovir 400 mg orally twice a day OR **Valacyclovir** 500 mg orally once a day* OR **Valacyclovir** 1 g orally once a day OR **Famiciclovir** 250 mg orally twice a day
* Valacyclovir 500 mg once a day might be less effective than other valacyclovir or acyclovir dosing regimens in persons who have very frequent recurrences (i.e., ≥10 episodes per year).

Table:5 Episodic therapy for recurrent herpes genitalis

Acyclovir 400 mg orally three times a day for 5 days OR **Acyclovir** 800 mg orally twice a day for 5 days OR **Acyclovir** 800 mg orally three times a day for 2 days OR **Valacyclovir** 500 mg orally twice a day for 3 days OR **Valacyclovir** 1 g orally once a day for 5 days OR **Famciclovir** 125 mg orally twice daily for 5 days OR **Famciclovir** 1 gram orally twice daily for 1 day OR **Famciclovir** 500 mg once, followed by 250 mg twice daily for 2 days

Table:6

Recommended Regimens for Daily Suppressive Therapy in Persons with HIV
Acyclovir 400–800 mg orally twice to three times a day OR **Valacyclovir** 500 mg orally twice a day OR **Famciclovir** 500 mg orally twice a day

Table: 7

Recommended Regimens for Episodic Infection in Persons with HIV
Acyclovir 400 mg orally three times a day for 5–10 days OR **Valacyclovir** 1 g orally twice a day for 5–10 days OR **Famciclovir** 500 mg orally twice a day for 5–10 days

Genital warts were reported in 30 cases (24%). HPV is also responsible for cervical cancer, which is most common cancer in women. In immunocompromised patients warts are larger, multicentric and refractory to treatment and recurrent in nature(fig 4). HIV infection and related CD4 cell depletion are associated with increased expression, extent and neoplastic complications of HPV[10-,13]. BUSHKE LOWENSTEIN tumour is seen with immunosuppression of HIV/AIDS. Treatment of anogenital warts should be guided by wart size, number, and anatomic site; patient preference; cost of treatment. Topical preparations like Imiquimod, Podofilox (podophyllotoxin), Sinecatechins are used. Cryotherapy, electrocautery, carbon dioxide (CO2) laser are other options available to treat warts.

figure4: Penile warts in immunocompromised

Molluscum contagiosum in seen in 24 cases (19%) in our study. Of these 8 cases are HIV positive. Extra genital MC is an indicator for HIV screening. Patients with HIV have an increased rate of infection. Extensive lesions and giant MC are commonly noted (fig5). Prevalence and severity of MC increases with advancing immunodeficiency and lesions occur in upto one third of patients with CD4 Tcell counts of 100/micro liter or lower[14]. Treatment options include curettage with molluscum curette, 5% imiquimod, KOH application, topical 0.1% tretinoin, TCA application, cryotherapy with liquid nitrogen and electrocautery.

figure 5: MolluscumContagiosum in immunocompromised

V. Conclusion

Viral STDs are emerging as a threat in the era of HIV infection. Herpes genitalis is the most common among viral STDs. They are important markers in HIV disease progression. Imuunosupression in HIV alters the natural history of disease.

References

[1]. Mayaud P and McCormick D. Interventions against sexually transmitted infections (STI) to prevent HIV infection. Brit Med Bull (2001); 58 (1): 129-153

[2]. Backer DA. Diagnosis and treatment of viral STDs in women. Int J FertilWomens Med (1997); 42(2):107-114.

[3]. Sharma VK, Khandpur S. Changing patterns of sexually transmitted infections in India..Natl Med J India (2004);17:310-9.

[4]. Center for disease control and prevention. 1993 Revised classification system for HIV infection. Morbidity and Mortality Weekly Report (MMWR)1992,41:96

[5]. RaghunandanGovindTorsekar, Rujata K Sathe, Viral STDs, IADVL Textbook of Dermatology 4th edition(2015,Bhalani publishing house, Mumbai)2871-2896.

[6]. Kavina B; Bilimoria FE; Rao MV. Studies on the pattern of viral STDs in era of HIV. Indian J Transm (2006);27(2):78-82

[7]. Aral SO. Behavioral aspects of sexually transmitted diseases: core groups and bridge populations. Sex Transm Dis. 2000 Jul;27(6):327-8.

[8]. Setia MS, Jerajani HR, Brassard P, Boivin JF. Clinical and demographic trends in a sexually transmitted infection

[9]. clinic in Mumbai (1994-2006): An epidemiologic analysis. Indian J DermatolVenereolLeprol 2010;76:387-92.

[10]. Cohen MS. Sexually transmitted diseases enhance HIV tramsmission: no longer a hypothesis. Lancet 1998.351(Suppl III)SIII 5-7.

[11]. Spitzer M, Krumholz B, Seltzer V. The multicentric nature of disease related to human papillomavirus infection of the female lower genital tract. ObstetGynecol 1989; 73:303–307

[12]. Ho G, Burk R, Fleming I, Klein R. Risk of genital human papillomavirus infection in women with human immunodeficiency virus-induced immunosuppression. Int J Cancer 1994; 56:788–792.

[13]. Kiviat N, Rompalo A, Bowden R, et al. Anal human papillomavirus infection among human immunodeficiency virus-seropositive and seronegative men. J Infect Dis 1990; 162:358–361

[14]. Melbye M, Palefsky J, Gonzales J, et al. Immune status as a determinant of human papillomavirus detection and its association with anal epithelial abnormalities. Int J Cancer 1990; 46:203–206.

[15]. KoopmanRJ,VanMerrienboer FC, Vreden S.G. and Dolmans, W.M. Molluscumcontagiosum:a marker for advanced HIV infection. Br J Dermatol;126:528-529.