A clinico-epidemiological study of ulcerative sexually transmitted diseases with human immunodeficiency virus status

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Abstract

Introduction: Genital ulcerative diseases are a major public health problem. The advent of human immunodeficiency virus (HIV)/AIDS over the past 25 years has deepened the scope of morbidity, mortality, and various forms of clinical presentations of sexually transmitted diseases (STDs). Materials and Methods: A total of 50 cases having Genital ulcerative diseases and STD reporting to STD clinic during the period of the year from November 2005 to December 2006 were included and detailed history and clinical examination were carried out and provisional diagnosis is made. Laboratory confirmation of clinically diagnosed cases was done using laboratory tests such as S. HIV, venereal disease research laboratory, Tzanck smear, gram stain, and Giemsa stain. Result: In the present study, the incidence of herpes progenitalis was (38%) followed by primary syphilis (32%), chancroid (26%), lymphogranuloma venereum (02%), and genital scabies (02%). HIV sero-positivity was detected in 12% (n = 6) cases. Conclusion: HIV was found to be more common among genital ulcer disease patients, especially syphilis and genital herpes.

Key words: Chancroid gonorrhoea, HIV infection, herpes genitalis, sexually transmitted disease, syphilis, LGV

INTRODUCTION

Genital ulcerative disease can be defined as a condition in which there is a breach in the continuity of the epithelium of the genital skin and mucous membranes. The origin of sexually acquired genital ulcer diseases (GUDs) still appears deeply buried in antiquity.[1] The advent of human immunodeficiency virus (HIV)/AIDS over the past 25 years has further deepened the scope of morbidity, mortality, and various forms of clinical presentations GUDs.[2,3] HIV/AIDS, which has no doubt created a fertile ground for sexually transmitted diseases (STDs) to thrive, and vice versa, presently poses a serious health threat to at least a billion people of the global community.[4‑6]

The ulcerative STDs are major health problem in many developed and developing countries as a group of communicable disease, but prevalence rate is higher in developing countries.[7] The importance of ulcerative STD has increased considerably due to the fact that these lesions are a major co-factor in the transmission of the HIV,[8] and hence it is necessary to provide prompt and effective treatment as early as possible. Identification of the prevalent GUDs in HIV/AIDS patients in the locality would be an important guide toward choice of procurement and supply of relevant medications to the health centers in the region.

MATERIALS AND METHODS

A total of 50 cases were studied from the period extending from November, 2005 to December,
2006. The history was taken in detail with general examination, local examination and systemic examination. Laboratory investigations such as gram stain, tzanck smear, wet mount, 10% KOH, giemsa stain, culture and sensitivity of discharge, biopsy were also done. Serum venereal disease research laboratory (VDRL) and serum ELISA for HIV were done in every case. Specific diagnosis of genital ulcers was based on available medical history, clinical evaluation, and laboratory diagnosis.

**RESULTS**

The study shows that the majority of patients i.e., 29 (58%) belonged to sexually active age group i.e., 21-30 years [Table 1]. Male to female ratio was 4.55:1 [Table 2]. History of sexual exposure was positive in 68% of male and 4% of female patients. Clinically maximum number of cases 19 (38%) were of herpes genitalis followed by primary syphilis 16 (32%), chancroid 13 (26%), lymphogranuloma venereum 01 (02%) and scabies 01 (02%) [Table 3]. Out of total studied patients five were of mixed STDs and most common manifestation was the presence of multiple genital ulcers having different morphological appearance due to different causative organism. In clinically diagnosed cases of primary syphilis, the reactivity of serum VDRL [Table 4] was seen in 11 (84.61%) out of 13 of cases. Follow up VDRL can be of help in diagnosing some more cases of syphilis. VDRL was also positive in 5 (39%) out of 13 cases of chancroid, which suggest the presence of mixed infection. Out of 16 cases of chancroid all the 16 were positive for pleomorphic Gram-negative cocobacilli and 19 smears out of 19 cases of herpes genitalis were confirmed by visualization of acantholytic cells and multinucleated giant cells. Out of HIV sero-positivity was seen in 12% (n = 6) cases of GUD, with syphilis in 50.0% (n = 3), genital herpes in 33.33% (n = 2) and chancroid in 16.67% (n = 1).

**DISCUSSION**

Among the HIV/AIDS attendees with GUDs the female gender constituted 18% of the 50 subjects. This finding appears different from the general pattern of presentations of STDs with often higher frequency among females compared with males. The high incidence of GUDs among those aged 21-30 years is understandable as this corresponds to the most sexually active age group with the attendant risk for transmission of both HIV and other sexually transmitted infections. The pattern of Genital ulcerative STDs differs from country to country and from region-to-region, especially in large countries like India. Frequency of clinical disease same in Anand Kumar, while Nair in their study revealed that the maximum number of cases were of
syphilis. HIV sero-positivity in the present study is comparable with the Anand Kumar study, but it was higher than Aggarwal study and Zamzachin study. The higher prevalence of herpes genitals in the present study reflect the changing trends in the pattern of the STDs in our country.

More males indulge in extramarital sexual relations which explain the higher prevalence in the male. GUD increase the risk of transmission of HIV infection, among which chancroid has a higher risk for acquisition of HIV infection.

Studies have severally reported a high incidence of genital ulcers among HIV/AIDS patients when compared to the non AIDS group. Findings from Spain showed that herpes, syphilis and chancroid were the most common genital ulcers encountered among AIDS patients, and they in turn increase the risk of contracting HIV by several fold. Similarly, in India, genital ulcers such as herpes, syphilis, lymphogranuloma venereum, granuloma inguinale, and chancroid were the most commonly encountered GUDs among HIV/AIDS patients. In Sao Paulo, Brazil, herpetic and autoimmune ulcers were the most frequently encountered GUDs seen in 53 women presenting at a clinic without a definitive diagnosis.

CONCLUSION

HIV was found to be generally more common among GUD patients, especially syphilis and genital herpes.

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