

HIV INFECTION AMONG CANCER CERVIX PATIENTS

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ABSTRACT

Serum samples were collected from 200 patients suffering from cancer cervix and tested for the presence of antibodies to Human Immuno-deficiency Virus (HIV). One person was seropositive by both Enzyme Linked Immunosorbent Assay (Elisa) and Western Blot (WB) tests, the positivity rate being 0.5 percent. The sera were also tested for Hepatitis B virus surface antigen (HBsAg) and syphilis by Reverse Passive Haemagglutination (RPHA) and Venereal Disease Research Laboratory (VDRL) tests respectively. HBsAg was positive in 38 (19%) and VDRL in 9 (4.5%) persons. In the control group of 50 healthy females, antibodies to HIV, HBsAg and VDRL were negative.

INTRODUCTION

Carcinoma of the cervix is the most common malignant neoplasm of female genitalia and accounts for 45-50% of all cancers in women and represents over 80% of all uterine cancers (Mitra 1971). The venereal etiology of cancer cervix is a well documented fact (Beral 1974). It has been hypothesized that cervical cancer is primarily a sexually transmitted disease and there is a close association between cancer cervix, Herpes simplex virus II (HSV-2) and Human Papilloma Virus (HPV). The mode of transmission of these viruses is essentially through sexual contact. The higher incidence of cancer cervix in persons having multiple sexual partners namely, prostitutes and promiscuous women, is also well estab-

lished (Franceschi et al, 1986 and Slattery et al 1989).

Immunosuppressed women are at an increased risk of HPV associated cervical intraepithelial neoplasia (CIEN) and carcinoma of the cervix (Carson, 1986). Henry et al (1989) suggested that HIV infected group may be at an increased risk of CIEN and Cervical carcinoma.

In the light of the above, considering cancer cervix patients as a separate group of people with high risk behaviors, the study was undertaken to know the prevalence of HIV infection among them.

MATERIALS AND METHODS

200 cancer cervix patients whose diagnosis was histopathologically confirmed, admitted to SVRR Cancer Institute, Tirupati, constituted the study group. History regarding age at marriage,

parity and sexual activity was obtained. Similarly, 50 healthy females attending urban family welfare clinic were included to serve as controls. Serum samples were collected from cancer cervix patients prior to therapy and from control group and tested for HIV antibodies, HBsAg and syphilis by ELISA, RPHA and VDRL tests respectively using commercially available kits. Repeatedly ELISA positive sera were sent to Christian Medical College, Vellore for confirmatory WB test. For VDRL, a titre of 1 in 8 and above was considered positive.

RESULTS AND DISCUSSION

Out of 200 patients tested, 108 (54%) started their marital life at an early age of 14-16 years, 178 (89%) were multiparous, 90(45%) were in cancer cervix stage III B and 53 (26.5%) in Stage II B and the remaining 57 in stages I A, I B, II A, III A and IV A in minor proportions.

HIV seropositivity was detected in one (0.5%) patient only. She was aged 40 years, married at the age of 16 years, multiparous, widow for the past 9 years. She admitted that she had multiple sexual partners. Clinical and histopathological examination showed that she was suffering from cancer cervix stage II B. VDRL was non-reactive and HBsAg was negative. General condition was good. She is HIV seropositive but asymptomatic.

From Hennepin County Medical Centre and Colposcopic Clinic, Henry et al (1989) reported a possible association between CIEN, HIV and HPV in four women. Similarly Pomerantz (1988) found HIV antigens in 3 cervical biopsy specimens from women with cervicitis by specific immuno-histochemical staining suggesting that HIV enters cervical secretions from selected

infected cell populations within the cervical tissue and the HIV infected cells in cervical tissue may be involved in transmission of HIV by heterosexual contact and to neonates born to HIV infected mothers.

HBsAg was positive in 38 (19%) persons screened. Similarly 9 (4.5%) patients were VDRL positive. All the 50 females in the control group were negative for HIV, HBsAg and VDRL. It is suggested that cancer cervix patients should be screened for HIV infection as a routine.

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