HIV: CHANGING SCENARIO AND NEW CHALLENGES

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KEY WORDS :

Acquired immunodeficiency syndrome (AIDS) has become one of the most dreaded disease in the world and is a major threat to human race in the century defying all the methods of treatment. It is a devastating illness with profound immunodeficiency. Epidemiological scenario and knowledge about this disease are fast changing. It was first recognised in United States of America in 1981. Serosurveillance for human immunodeficiency virus (HIV) was started in India in 1985. The first case of AIDS in India was registered at Mumbai in May 1986. The available data suggest an 'epidemiological ascending phase in Asia with rapid increase in number of HIV-infected persons, particularly amongst high risk behavior individuals, adolescents and young adults, antenatal mothers and intravenous (IV) drug abusers (1). At the turn of century, 20-50 million adults are projected to be infected with HIV in Asia and India is likely to have largest number as a single country (2). Considering the magnitude of the problem, National AIDS Control Organisation (NACO) was established under the Ministry of Health and Family Welfare and started functioning in 1987.

A total number of 1,644,183 AIDS cases has been reported by WHO till Jun 1997 (3), an increase of approximately 18% over corresponding figures till Jun 1996. Considering under diagnosis, incomplete reporting and delay in reporting, it is estimated that approximately 9 to 10 million AIDS cases have occurred and more than 30 million persons have been infected with HIV so far. Epidemiological data suggests that number of new HIV cases is declining in Africa and Europe. The major pockets of infection in Asia are India, Thailand and Myanmar. Unfortunately the descriptive epidemiology of HIV infection and AIDS in India is poorly documented (1). It has spread rapidly in Maharashtra, Tamil Nadu, North-Eastern states and Gujarat and to a lesser extent in Northern and Central India. There is no report of any case from Arunachal

Pradesh, Andaman & Nicobar island, Dadra & Nagar Haveli, Lakshadeep and Tripura.

According to NACO, a total of 67,311 persons have been reported to be HIV positive in India till Oct 1997. Between 1986 and 1994, seroprevalence has risen rapidly from 1.6 to 40% in commercial sex workers and in STD clinics (4-6). As in Africa, heterosexual contact with commercial sex workers is the most common mode of acquisition of HIV in India (4,7). It was further observed that women acquire HIV mostly from their infected spouse and use of condom is limited to 1-8% of couples only. The other common modes are transfusion of blood and blood products and IV drug abuse. In this connection, elimination of professional blood donors acquire a special significance. Men who have sex with men (MSM), a specially vulnerable group in industrialized countries, are of relatively less significance for transmission of HIV infection in India (1). Most of the MSM in India are married and function bisexually. The other risk factors for transmission of HIV infection peculiar to our country are occupation (truck drivers and cleaners), jail inmates, patients attending sexually transmitted disease (STD) and leprosy clinics, history of past genital ulcers, commercial blood donors, IV drug abusers (5,6). The urban to rural ratio is approximately 3:1. It appears that patients in India are relatively young, mostly belonging to poor socioeconomic status and they fast progress to lower CD4+ cell count. Unfortunately these patients are often recognized at a later stage in the disease and as such there is limited survival benefit in treating these patients, particularly when there is a resource crunch in health facilities. Thus, there is requirement of more aggressive screening to recognize these patients at the earliest for consideration for effective anti-retroviral therapy and/or prophylaxis.

Sex, either heterosexual or homosexual, is closely related to HIV & AIDS. The HIV infection and STD

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share a common risk behavior. However, compared to HIV, STD is more symptomatic and easy to diagnose. In the absence of cure or a vaccine, prophylaxis is the only way of safeguarding health against HIV infection. It is better to be 'safe than to be 'sorry. Safe sex and not the 'No sex should be the achievable aim. In this issue of journal, Kar and Chari have reported that 1.1% of cases attending STD clinic were infected with HIV. This is in contrast to high rate (10.2%) observed by Mehendale et al (1996) from Pune and by other workers (8). Studies are needed to go into details of this variability.

As the infection with HIV progresses and profound immunodeficiency sets in, individual becomes susceptible to infection with a number of pathogens and to development of malignancy (9). It is important to note that progression of HIV infection is associated with marked variability and till now there is no satisfactory parameter to forestall it. The information available as opportunistic infection among HIV-infected persons is quite inadequate in developing countries and particularly in Asia (10). However, experience tells us that tuberculosis, particularly pulmonary one, is the major HIV-associated infection (1). Oropharyngeal candidiasis and cryptosporidiosis are other infections prevalent in India. In contrast, other infections like cryptococcosis, toxoplasmosis, cytomegalovirus, herpes simplex, herpes zoster and histoplasmosis are less prevalent in our country.

The risk of HIV infection to health care workers after a cut or needlestick exposure to infected blood is approximately 0.3%. This risk increases if a larger volume of blood is exposed (11). Exposure to other body fluids e.g. tears, saliva and urine carry a much smaller risk. Universal precautions and safety devices are mainstay in the prevention of infection after percutaneous exposure. Post-exposure prophylaxis with zidovudine (ZDV) and other antiviral drugs do offer some protection and must be considered after any type of exposure to HIV. However, such an approach must be weighed against possible serious side effects of drugs and cost involved in instituting such a treatment.

It is quite apparent that economic and social deprivation, as is prevalent in developing and underdeveloped countries, produces an environment which helps

in propagation of HIV infection. It is also true that spread of HIV infection and AIDS will perpetuate poverty and economic backwardness. Thus preventive measures should not be directed only against HIV infection but also against poverty and ignorance. Major areas of thrust must include serosurveillance; strengthening of STD and tuberculosis control programmes; promoting use of condom and safe sex practices; screening of blood and blood products; reducing maternal transmission by reinforcing antenatal care; universal precautions among people caring for HIV-infected patients and blood; development of cheaper and safer antiretroviral chemotherapy; and socio-economic rehabilitation.

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