

Early Diagnosis of HIV Infection and its Treatment

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DESCRIPTION

The body's immune system is the target of the virus known as the Human Immunodeficiency Virus (HIV). The most severe form of the illness is known as Acquired Immuno Deficiency Syndrome (AIDS). HIV weakens immunity by attacking white blood cells in the body. This makes it more likely that you may get infections, some cancers, and illnesses like tuberculosis. Body fluids from an infected person, including blood, breast milk, semen, and vaginal secretions, can transmit HIV. It can also be transferred from a mother to her child. One method of treating and preventing HIV is Anti-Retroviral Therapy (ART). If treatment is not received for HIV, it can progress to AIDS, often years later [1,2].

World Health Organization (WHO) stage 3 or 4 in adults and adolescents, or a CD4 cell count of less than 200 cells/mm³, are the current definitions of Advanced HIV Disease (AHD). All HIV-positive children under the age of five are regarded as having advanced HIV illness. The first stage of HIV infection is acute. It usually starts two to four weeks after HIV infection. People living with HIV have a lot of virus particles circulating in their blood during this time. This facilitates the virus's ability to infect more people. Acute HIV infection patients may exhibit the above-mentioned flu-like symptoms. Testing is recommended for everyone who suspects they may have been exposed to HIV since prompt diagnosis and treatment can stop the disease from progressing to the next stage [3,4].

Due to societal and moral constraints around the disease, Acquired human Immuno Deficiency Syndrome (AIDS) was perceived as fatal, which led to stigmatization of the illness and the ensuing discrimination. Nonetheless, due to growing awareness of the virus's modes of transmission and available treatments, the way society views HIV infection is changing [5,6].

HIV infection can alter a person's physical makeup and increase the risk of various symptoms from the acute to the advanced stages of the disease. Since this population exhibits risk behaviors, does not engage in post-exposure behaviors, and it is estimated that the average time between infection and the onset

of the disease's symptoms is approximately ten years, it is imperative that knowledge on the topic be promoted. HIV, the cause of Aids, which is currently recognized as a chronic communicable disease, can be found in bodily fluids or secretions such as blood, semen, vaginal secretions, and breast milk. It can also be found in risky behavior, information, unprotected sexual relations, and injectable medicines [7].

It can be spread horizontally between the infected mother and the child during pregnancy, childbirth, or breastfeeding. It can also be spread vertically through sharing syringes and needles, unprotected sexual relations, biological accidents involving contaminated sharps, particularly in health institutions (hospitals, clinics, or laboratories), and blood transfusions [8].

Aids was considered an acute disorder since it showed symptoms soon after diagnosis and had a high death rate due to the lack of effective treatments [9]. It became recognized as a chronic communicable disease after a few decades, primarily because of three things: increased understanding of the natural history of HIV infection, the ability to track the disease's progression through the use of laboratory markers like CD4 T and viral load tests, and improvements in antiretroviral therapy [10,11].

The course of treatment will vary depending on the patient and their problems. To create an appropriate plan, one can confer with a healthcare team. Treatment with antiretroviral can aid in viral management. Antiretroviral medications come in various forms, and the patient could require a mix of medications. These drugs have the ability to lower the virus's blood level to the point where tests can no longer identify it [12]. There is no longer a chance of spreading the infection to other people after this. To maintain the virus at this low level, adherence to the recommended treatment regimen is necessary. In addition to various medications, those living with HIV may require specialized care since they are more vulnerable to other illnesses than those without the virus. Because HIV compromises immune function, a person may be more susceptible to infections like tuberculosis or viral hepatitis. For the treatment or prevention of these and other infections, a doctor can prescribe medicine [13].

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