

HIV/AIDS AWARENESS

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INTRODUCTION

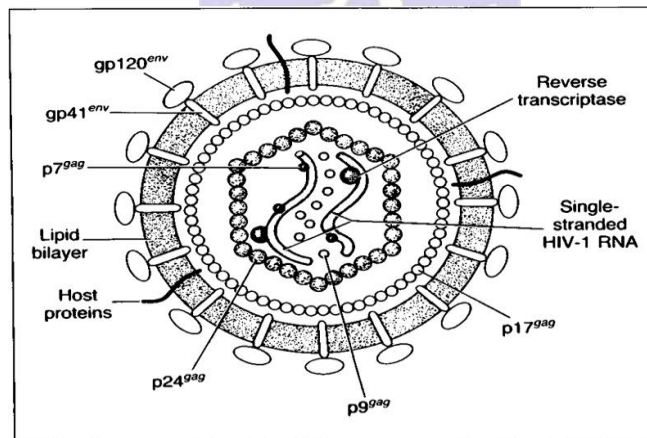
Most of you must have heard of HIV. HIV stands for Human Immuno Deficiency Virus. It is caused by a virus that attacks the body's natural defence immune system. Do you know what the body's immune system does? Yes, it defends the body against many infections. Can you clarify what will happen if there is no defence system is in action in the body? The germs and pathogens will attack the body and the person's immunity is reduced, lowered, and becomes compromised. This makes him/ her prone susceptible to catch many diseases and infections. A person infected with HIV virus can transfuse the disease to other people. When HIV virus has destroyed the person's defence system- AIDS sets and come in to force in the affected individual. AIDS stands for Acquired Immuno Deficiency Syndrome. HIV/AIDS is a highly communicable and infectious disease. It is highly debilitating. It affects a person's productivity, efficiency, and has no cure. Hence in order to protect ourselves we must know how this disease spreads and transmitted to normal individuals.

VIRUS

Human immune deficiency virus infection came into humans from chimpanzee in Central Africa. Studies shows that HIV may have jumped from chimpanzee to human as far back as the late 1800S. In India the human immune deficiency virus entry history confirms that the virus entered in India in prostitutes in Chennai in 1986. It is presumed that the virus has entered in human population while hunting chimpanzees. World health organisation has declared that acquired immune deficiency syndrome is the fourth biggest cause of death worldwide and the number of deaths in Africa and estimated 34 million peoples were living with HIV and 14 million peoples were recognised to have died from AIDS since the start of the epidemic. Since beginning it is only the awareness that can give protection to the human population of the world from the disease

HIV is a type of retro virus category Virus. It damages our T – Helper also called CD4 Lymphocytes cell of the body. It has two RNA molecules as genetic material. Monocytes are HIV factory of the body. The virus is highly mutating agents. The virus bears the innermost protein coat, reverse transcriptase enzyme, integrase enzyme. The virus has outer most protein coat of p17

lipid layer of The human virus has reverse The enzyme is of DNA polymerase syntheses of The later affects machinery. The will be taken up is helped by the The virus macrophage of



protein the outer most glycoprotein spike. immune deficiency transcriptase enzyme. RNA dependent category. It does the cellular cellular machinery by the virus. All this enzymes.

multiply in the the body. Its DNA is

incorporated with the macrophage cell's DNA The virus goes for transcription and forms RNA. Simultaneously the virus does the synthesis of protein with the help of cellular machinery and finally the new cookies of the virus are generated inside the macrophages. The new viruses rupture the membrane and comes out and it affects the other macrophages. In this way the virus makes its multiple copies.

The pictorial representation of the virus is as under.....

MODE OF TRANSMISSION

The HIV/AIDS virus is spread by:

- (i) Sexual contact with an infected person.
- (ii) Exchange of infected body fluids, e.g., blood transfusions.
- (iii) Use of infected needles.
- (iv) From infected mother to child during pregnancy or at birth.

(v) Dentist article.

(vi) Boring of pinna and nose.

(vii) Tattoo articles.

(viii) Barber articles.

(ix) Organ transplantation.

(x) Surgical articles.

(xi) ENT articles.



SAFE SIDES

You must have seen roadside posters and banners and advertisements on television explaining how HIV/AIDS does not spread. Can you recall messages about how HIV/ AIDS does not spread? HIV/AIDS cannot spread by:

- Shaking hands
- Kissing on the cheeks
- Using the same toilet seat
- Standing close to the infected person
- Through the air, that is, sneezing, coughing, etc.
- Through cups, glasses, plates
- Water or food

There is no cure for HIV/AIDS yet, nor is there any vaccine to protect people. However, some preventive measures that can be taken are:

Restrict the number of sex partners to one

- Use protection during sexual contact
- Always use only properly sterilized needles for injections
- Insist on getting properly tested blood from registered blood banks when in need of blood transfusion
- Seek medical advice for bearing a child if infected with HIV.

It is important to understand that HIV infection and AIDS are related terms but not the same. HIV infected person may not be suffering from AIDS i.e. an HIV infected person if takes nutritious diet and maintains healthy life style can deter the onset of AIDS and can lead a productive life for a number of years.

Conclusion

Do not die of ignorance. If you want to live healthy and cheerful life you must be loyal for the partner. Even if one wants to opt more than one partner one must use condom. If someone becomes opportunistic, one must take right treatment. There is no doubt while saying that only healthy and energetic citizens can be productive for a country.

REFERENCE:

1. Centers for Disease Control and Prevention. Sexually transmitted infections treatment guidelines, 2021. Jul 2021 [internet publication].
2. World Health Organization. HIV/AIDS. Nov 2020 [internet publication].
3. U.S. Department of Health and Human Services. Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in adults and adolescents with HIV. Sep 2022 [internet publication]
4. Joint United Nations Programme on HIV/AIDS (UNAIDS). UNAIDS data 2021. Nov 2021 [internet publication]
5. Pinto LA, Landay AL, Berzofsky JA, et al. Immune response to human immunodeficiency virus (HIV) in healthcare workers occupationally exposed to HIV-contaminated blood. Am J Med. 1997 May 19;102(5b):21-4.