



HIV SCENERIO AMONG DIFFERENT COMMUNITY PEOPLE OF ASSAM

PRIYANGANA BORA

UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA

DEPARTMENT OF APPLIED BIOLOGY

BSC MICROBIOLOGY

ABSTRACT

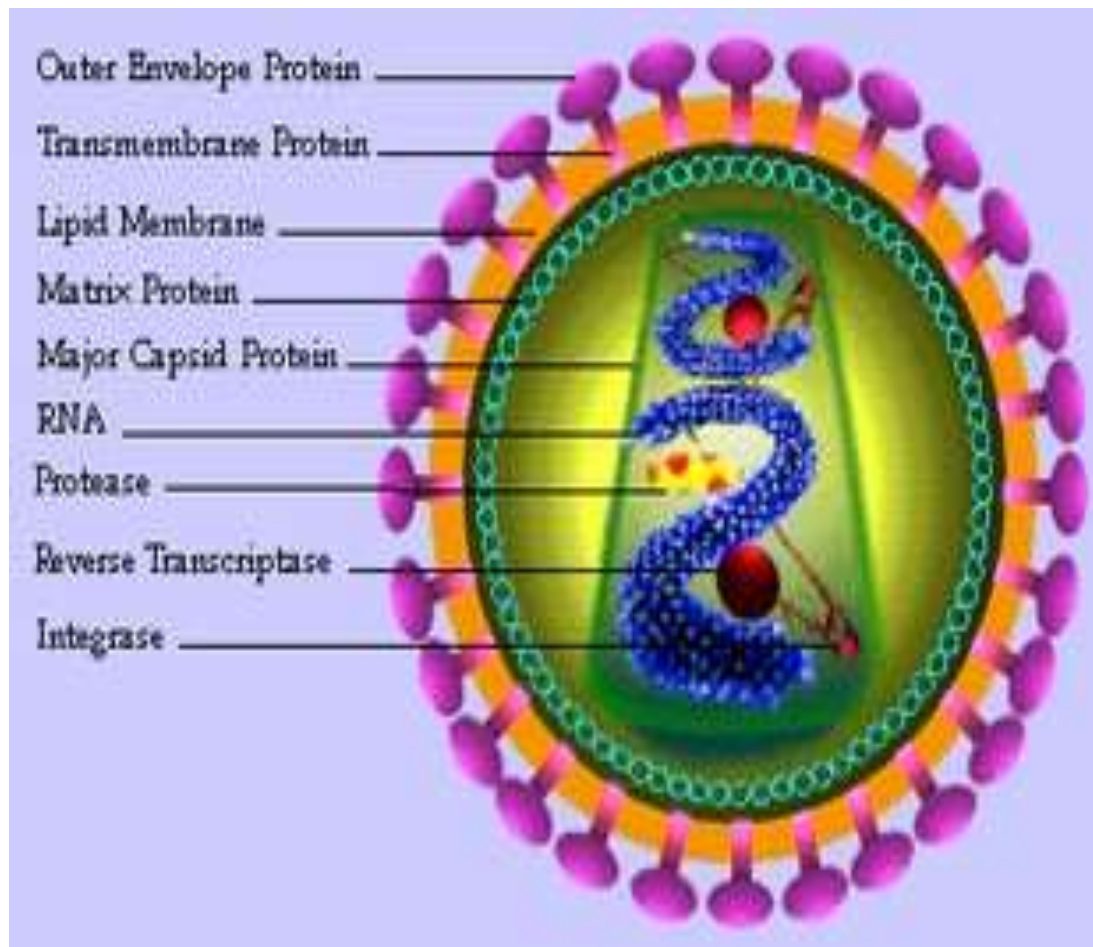
The issue of HIV/AIDs has been of a great concern. Human Immunodeficiency Syndrome can be referred to as a blood borne virus that is usually transmitted through sexual intercourse. It is usually caused by getting infected with HIV-1 or HIV-2 that are both retroviruses in the retroviral family. HIV infection can found among any age group of people starting from children, adult, and to old. Homosexual, bisexual or transgender people's also now a days rapidly get infected due to lack of protection. Transfer of blood, using same ejection needle and getting contact with body fluid if HIV positive person infection can spread,

KEYWORD: HIV, Lentivirus, Retrovirus, Subgroup, MSM.

INTRODUCTION

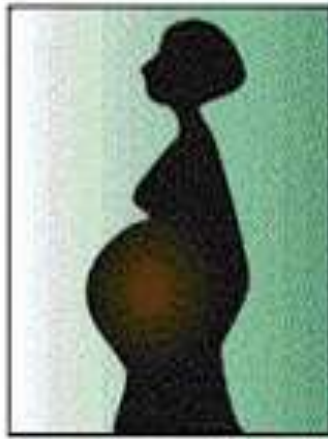
The Human Immunodeficiency Viruses (HIV) are two species of Lentivirus (it's a group of retrovirus) that infect humans. With long time, they cause acquired immunodeficiency syndrome (AIDS). AIDS is a condition in which progressive failure of the immune system allows life threatening opportunistic infections and cancers to trive. According to study, a HIV positive person without diagnosis and treatment can survive only maximum estimated to be 9 to 11 years, depending on the HIV subtype. In considering to Assam, most of the HIV cases found through sexually transmitted infection which mainly occur by contact with or transfer by blood, pre-ejaculate, semen, and vaginal fluids. For this case now a days most of the pregnant women tested HIV positive at early stage of pregnancy. While researching it has been known that for both same sex and also for opposite sex couples HIV is untransmittable through condomless intercourse if the HIV positive partner has a consistently undetectable viral load. In case of pregnancy non-sexual transmission can occur from an infected mother to her infant, during childbirth by exposure

to her blood or vaginal fluid, and even through breast milk while feeding baby. As HIV is present as both free virus particles and virus within infected immune cells. This infection infects some vital cells in the immune system, like helper T-cells specifically CD4+ T cells, macrophages and dendritic cells. Through number of mechanisms throughout the human body the HIV infection level leads to low CD4+ T cells, apoptosis of uninfected bystander cells, direct viral killing of infected cells and killing of infected CD4+ T cells by CD8+ cytotoxic lymphocytes that recognize infected cells.





**Unprotected
sexual intercourse
with an infected partner**

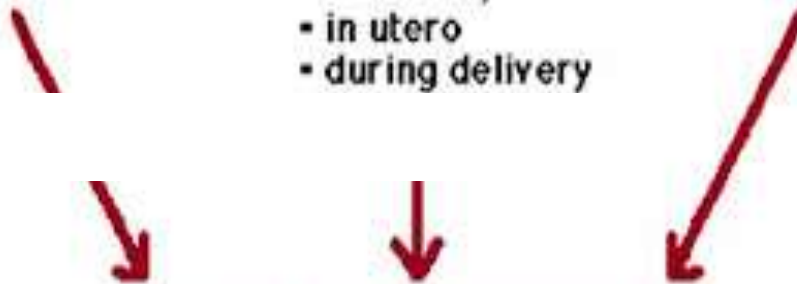


**Vertical
transmission**
(from mother
to child)

- in utero
- during delivery



Injection drug use
(rare: infected
blood/blood products)



HIV INFECTION

AIM AND OBJECTIVE

Human Immunodeficiency Virus (HIV) test is done for screening of donated blood, epidemiological surveillance of HIV prevalence or trends and diagnosis of infection in individuals.

REVIEW OF LITERATURE

HIV cases in Assam, if look at the end of year 2015, approximately 36.7 million people found with positive case. Among them 1.8 million to 2.4 million found newly HIV infected and sadly 1.1 million people found dead by AIDs related illness during 2015.

Before the year 2015, for the first time HIV infection detected among children which was decline by 50% in the year 2010. But most noticeably no single decline cases found in adults in the same year.

In 2005, the AIDs related deaths has fallen by 45%. In consideration to other states, Manipur and Nagaland yet can't be defined as a concentrated non-IDV epidemic.

At Regional level, the Northeastern which is a part of India comprises with some low HIV prevalence states. In Assam the highest HIV positive cases identify every year in Manipur where HIV prevalence in adult at 1.15% in 2015. Mizoram (0.80%) and Nagaland (0.78%) are declared other high prevalence states. If we talk about the recent years according to the similarity to the rest of the country, these high prevalence states has shown a declining trend in HIV whereas some of the low prevalence states are showing rising trend.

1.HIV Risk Behaviors and Health Behaviors.

2.HIV prevalence among transgender in Assam.

The cases of Men having sex with Men significantly the prevalence of HIV positive rises to 2.40% in the year 2010 – 2015. In North eastern region the MSM Community people make a physical relation with homosexual and bisexual men along with transgender people. At present this community group considered to be a high risk group(HRG) for HIV positive cases. Along with these group peoples, female sex workers, drug users and long distance vehicle drivers are also falls under high risk group. In Assam for the first time the rate of 2.80% HIV prevalence found in long distance truck drivers.

MATERIALS

- Patient blood sample
- HIV testing kit
- Buffer solution
- Protein A conjugate

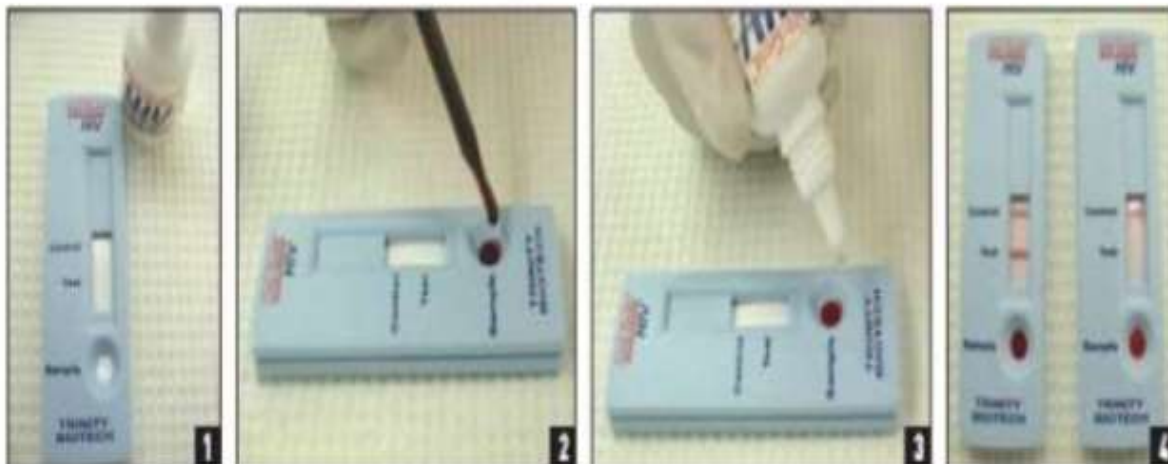
METHODS

- 1) 2-5ml of blood in a syringe by wearing gloves in the hands.
- 2) Do not recap the needle.
- 3) Immediately transfer the blood into a collection tube gently along the tube wall without squirting.
- 4) Discard needle, syringe, cotton balls, spirit swabs, wrapped, needle cap and gloves in proper waste disposal bags.
- 5) Centrifuge the blood collection tube for 10min at 2000 to 3000rpm to get separated serum from the blood.

- 6) After centrifugation kept the sample tube at stable manner so that the blood doesn't get mixed with blood.
- 7) Unrapped the kit cover and kept in a stable plate form and put buffer solution in it.
- 8) Use dropper and take the serum portion from the tube.
- 9) Put few drops of serum in the kit.
- 10) After putting the serum wait for few seconds and observe is serum get soaked.
- 11) After 'step 10' put 3drops of Protein A conjugate.
- 12) Set the timer for 15mints and wait for the result.

OBSERVATION

Observed after 15 mints in the kit, single red line is visible means HIV negative. Two red line visible means HIV positive.



RESULT AND CONCLUSION

According to recent study there has been an increase of HIV cases in Assam, the Assam State AIDS Control Society (ASACS) has stated that there are at present 19,545 HIV positive cases in the state with maximum number of cases detected in Kamrup district (6596) followed up by Cachar (4567) and Dibrugarh (1229). Amongst the other districts, Nagaon has 773 cases, Karimganj 729, Jorhat 641 and Golaghat 509. Amongst the detected cases 15,624 have been registered in Anti Retroviral Therapy (ART) and 7,992 patients are alive on ART.

HIV was occurring in transfusion recipients and individuals with hemophilia who had received AHF concentrate; these AIDS patients did not belong to any other known high risk group for contracting AIDS. The epidemiological pattern of AIDS was similar to hepatitis B, another blood borne disease.

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