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ANTIRETROVIRAL THERAPY – THE FUTURE OF HIV TREATMENT

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ABSTRACT

An estimated 36.7 million peoples are infected with the HIV worldwide. In countries with the very high seroprevalnce of human immunodeficency virus type 1. The HIV can be transmitted through contact with infected blood, semen or vaginal fluids. HIV is the type of virus called as retrovirus, and the combination of drugs which is used to treat it is called as antiretroviral therapy [ART]. The standard antiretroviral thearapy [ART] is consist of the combination of at least three antiretroviral [ARV] to suppress the virus and also used to stop HIV disease. Antiretroviral therapy is very effective treatment for HIV. It doesnot cure the condition but it can be reduce the viral load to undetectable level. The antiretroviral therapy [ART] was discovered by the scientists funded by NIH'S national cancer institute [NCI] firstly developed azidothymidine[AZT] in 1964. This review article indicates that the antiretroviral therapy [ART] can br reduce the viral load of the body and also now a day it is possible to control the HIV.

KEYWORD: Antiretroviral therapy, HIV, AIDS, Drug adverse effect.

INTRODUCTION

1] The acquired immunodeficiency syndrome [AIDS] is a medical conditins caused by human immunodeficiency virus [HIV]. The antiretroviral therapy is used to control the spread of HIV.

2] On 1 december 2018, WHO will join the global partners to commemorates World AIDS Day under the theme "Know Your Status".

3] The Luc Montagnier's team at the Pasture institute in paris discovered the HIV-1 in 1983.

4] HIV-2 was first reported in Africa in 1985.

5] The antiretroviral thearapy was very useful to reduce the infection of the HIV. HIV infections is a very current threat and easily br termed as a course upon the human race.

6] The following drugs are used in antiretroviral therapy [ART]

*Abacavir, or ABC (ziagen)

*Didanosine, or ddl(videx)

*Emtricitabine or, FTC (Emtriva)

* Lamivudine, or 3TC (Epivir)

*Strvudine, or d4t(zerit)

*Tenofovir alafenamide, or TAF (vermlidy)

*tenofovir disproxil fumarate, or TDF (viread)

* Zidovudine or, ZDV (retrovir).

7] The following table summarizes the no of adults, childrens newly infected peoples, death rate of patients all the data covering of the year 2014.

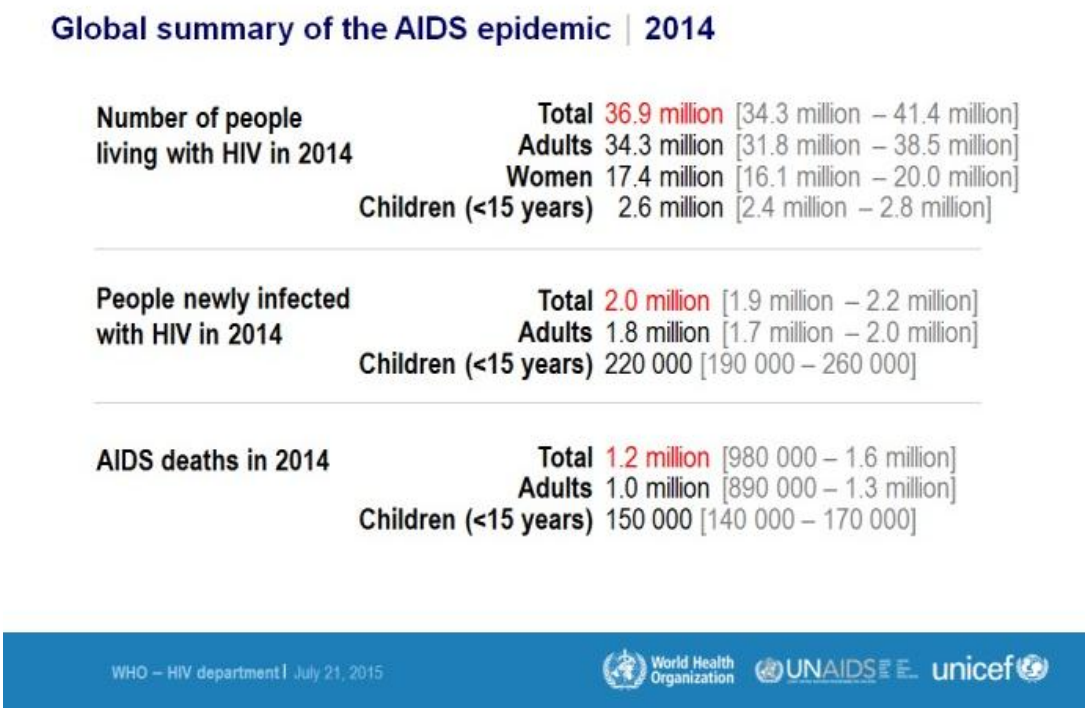

Figure: Prevalance of HIV /AIDS as 2014.

8] The HIV infection results in the diplection of CD4 cells in the pheripheral blood. The fallowing graph was represented the timeline of HIV infections from the initial infection below with their syndromes.

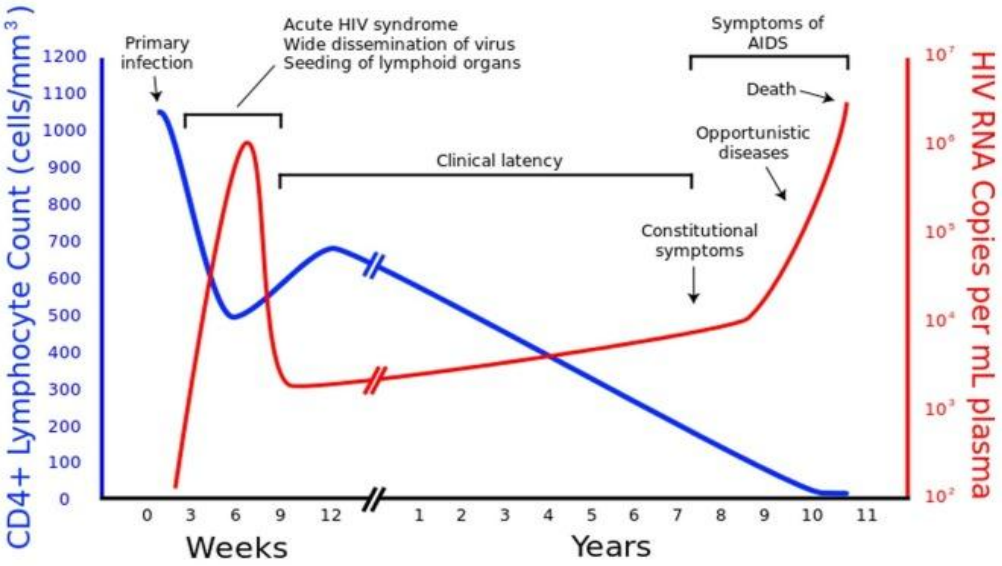

Figure: HIV time course.

Treatments options for HIV

The antiretroviral therapy now a days is used to cure the disase in small amount ;means to reduce the infection rate of the virus. The HIV infection has very complex pathogenesis and various substantically in different patients.

The following map show that the no of patient receiving ART in year 2013.

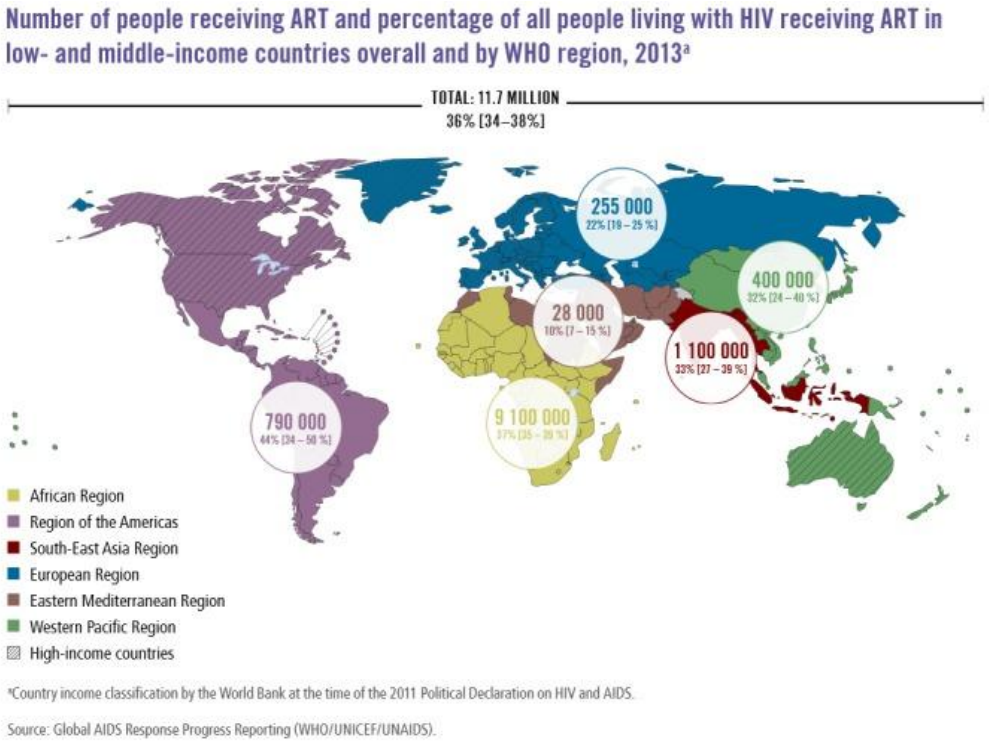

Figure: % of HIV patients under ART (AS per WHO 2013).

*It shows that's the more area cultivated by HIV is African region where the 1st HIV was found.

* The antiretroviral therapy leds to 60% to 80% decline in rates of AIDS.

METHODS

1. Data source, search procedure, inclusion criteria.
2. Calling and abstracting of adherence studies
3. Measurments of adherence
4. We evaluted the safety, tolarability, and activity of three regimens of antiretroviral therapy in a multicenter, open label, phase 1-2 trials.
5. those children are infected by the HIV-1 were stratified entry according to age- three months or yongest or younger (early therapy) or older than three months (delayed therapy) and assigned sequently to one of three regmines.
6. Childrens are continue to receive the treatment for upto 200 weeks if the plasma HIV-1 – RNA levels was less thsn 1000 copies per mililiters by the 16 weeks.
7. We report the early otcomes for the infants who received deffered antiretroviral therapy as campared withearly antiretroviral therapy [ART].

RESULT

Plasma HIV-1-RNA levels fell from a median of 5.3 log copies per mililiter (range 3.3 to 6.4log copies per mililiters) at baseline to less than 1000 copies per mililiter 16 weeks in 32 to 52 infants (62 %). Plasma HIV-1-RNA levles were below 400 copies per mililitre at 48 weeks in 26 infants (50 %) and at 200 weeks in 23 infants (44%). After a review by the data and safety monitering board, the defered thearpy group was modified, and infants in the group were all reassured for initiation of antiretroviral thearapy. Treatment asocciated advese effects were infrequents.

DISSCUSION

Consistent with the literature on HIV adherence among adults 19 and in general adherence literature 27 our review of research on HIV infected youth suggest that individuals demographic factors and readily observable patient characteristics failed to distinguish adherent from non adherent individuals. The most promising stratergies for improving treatment adherence among the infected patients and also caregiver education, self monitering, peer support. This review indicates that more research on the antiretroviral therapy is now adays possible to reduce the the viral load on the body. Also the research on

the adherence amongs the HIV infected youth or patients, as well as more vigorously evaluated interventions, are needed.

CONCLUSION

In phase 1-2 trial involving HIV-1 infected children, an age of three months or yonger at the initiation of the btherapy and treatment with stavudine, lamivudine, nevirapine, nelfinavirwere associated with improved long term viral suppression. Larger randamised trials are required to define the optimal time to initriate therapy and also the optimal regmine for these infants. Early HIV diagnosis and early antiretroviral therapy the reduced early mortality by 76% and HIV progression by 75%. In accordance eith the recommendation, in june 2007, of the data and safety monitering board, we report the early outcomes for infants who were randomly assigned to receive deferred therapy as compared with those assigned to receive antiretroviral therapy [ART]. It can be considered as a “chronic” disease, provided the infected patients receive proper ART. Additionally, it is highly advisible to provide patients and their immiadiate family members with appropriate counselling for treatment compliance and psychological supports.

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