DIAGNOSIS, TREATMENT AND PREVENTION OF HIV/AIDS –*Lyamuya E.*

DIAGNOSIS OF HIV/AIDS: CLINICAL

HIV infection cannot be diagnosed with certainty clinically without laboratory confirmation. Clinically AIDS definitions include: Disabling life threatening condition, caused by HIV and characterized by HIV encephalopathy, HIV wasting and laboratory evidence of HIV infection. WHO and CDC criteria are used for clinical diagnosis and staging. There are three categories of HIV associated conditions: First, Seroconversion illness such as fever, myalgia, arthralgia, adenopathy, malaise and rash. Second, opportunistic infections, for example, candidiasis, TB, Pneumonia, cryptococcosis, herpes zoster, toxoplasmosis, *Pneumocystis carinii* pneumonia, CMV infection e.t.c Third are HIV-associated malignancies; kaposi's sarcoma, lymphoma (non-Hodgkin's), primary CNS lymphoma and cervical intraepithelial neoplasia.

LABORATORY DIAGNOSIS OF HIV/AIDS

The purpose of HIV testing can be surveillance, diagnosis, blood safety, or voluntary Counseling and testing (VCT). The techniques for laboratory tests are;
Isolation of the virus in culture, detection of viral antigens e.g. p24 ag (by EIA), detection of viral nucleic acid by polymerase chain reaction (PCR), or detection of specific antibody to HIV antigens (by EIA or simple/rapid tests). Strategy of testing is screening by ELISA and confirming by Western blort or RIPA. Alternatively an algorithm based on two ELISA or simple/rapid assays can also be used.

TREATMENT

There is no cure to date, however, use of highly active antiretroviral therapy (HAART) with ARV drugs retards disease progression and improves quality of life. Other measures in the management of HIV/AIDS are: treatment of opportunistic infections, nutritional intervention, use of immunomodulators and home/community based care. It is important to note that claims for existence of effective herbal therapy for HIV/AIDS remain unproven. None the less it is important to investigate scientifically the role of traditional herbal therapy in HIV/AIDS treatment.

TREATMENT MONITORING

Monitoring of treatment is done immunologically through CD4 and CD8 counts, usually at 3 – 6 months interval, or virologically bye measuring the viral load with an aim of lowering the load to 50 RNA copies/ml of blood.

Prevention of HIV infection

There are several strategies which include; good Clinical Practice, sterilization of instruments for invasive procedures, use of appropriate disinfectants for decontamination of working surfaces and observing biosafety guidelines.

Others are behaviour modification that is abstinence, to delay age of coitarche, condom use, interventions for mother to child transmission by providing ARV to pregnant women, followed by exclusive breastfeeding for 4-6 months and safer alternatives to breast feeding. The other possibility is through vaccine. Several HIV vaccine candidates are undergoing in phase I/II trials. Phase III clinical trial is currently ongoing in Thailand and USA. Unfortunately, there are obstacles in HIV vaccine development. These are:

Scientific obstacles; genetic variability, lack of information on potential correlates of protection and relevance of animal protection experiments. Mice usually lie, monkeys don't always tell the truth, only humans give us the correct answers!

Another obstacle is logistical obstacles related to conducting vaccine trials especially in developing countries; whom to vaccinate and the question of trust as well as indemnity issues.

Finally economic obstacles since the whole exercise is an expensive endeavour, besides HIV is mainly a problem of poor countries.