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M.A. H. Sc. -----SEM-II

Therapeutic Nutrition CC5

Unit II : HIV/AIDS

Introduction:

AIDS means Acquired Immune Deficiency Syndrome. This syndrome was first identified in Los Angeles in 1981. **HIV or Human Immunodeficiency Virus** is considered global pandemic. According to W H O approximately 37.9 million people are infected with HIV globally. HIV continues to be a major global public health issue, having claimed more than 32 million lives so far.

The HIV/AIDS epidemic is inextricably associated with the social, cultural and economic value within communities .HIV is a virus that can infect people regardless of sex, race and social status. It is transmitted by semen, plasma, cervical secretion, tears, cerebral fluid, urine and breast milk. It does not survive. outside of the body. This is why it is considered that ordinary social contact with HIV positive persons create no risk of infection. It attacks and invades the white blood cells and simultaneously destroy the entire mechanism of body's defence system. As the virus destroys and impairs the function of immune cells, infected individuals gradually become immunodeficient. Immune function is measured by CD4 or T4 cell count .Once these cells have been side tracked, the immune system can no longer respond adequately to infection. The most advanced stage of HIV infection is called Acquired Immune Deficiency Syndrome (AIDS). It can take 2 to 15 years to develop if not treated properly on time.. AIDS is associated with the development of certain infections or other severe clinical manifestations.

Transmission of HIV:

It is transmitted through:

- Sexual intercourse with infected individuals. This is the commonest mode of transmission.
- Transfusion of contaminated blood.
- Use of contaminated needles during ear piercing, tattooing, acupuncture, or injection of drugs.
- An infected mothers to their unborn child or to their infants during breast feeding.

Not transmitted:

It is not transmitted through:

- Embarrassing or kissing
- Hugging, hand shaking and touching
- Coughing and sneezing
- Eating together
- Sharing bathroom, toilet and swimming pool
- Using others clothes
- Insects, mosquito and houseflies
- Nursing

Symptoms of AIDS

- Continuous swollen glands.
- Rashes, sore or white patches on the skin.
- Unexpected weight loss.
- Fever and night sweats.
- Shortness of breath, dry cough, chronic diarrhoea.
- Changes in hearing, taste, smell and vision..
- Highly susceptible to infections.

Diagnosis:

HIV is detected by the following tests:

1. ELISA test
2. Western blot test

Aim of Nutrition in HIV:

- To prevent nutritional deficiency and make immune system strong. Nutrition is the one of the powerful weapons for fighting against HIV infection.
- To provide sufficient nutrition to protect the patient from the risks of HIV related malnutrition.
- To enhance the quality of life.
- To minimize nutrition related complications, the patient should be given enough macro and micro nutrients.

Nutritional Requirements:

Energy: Energy requirement increases by 13% with the every degree Celsius increase of the fever. The patient should be given 2200-2800 kcal.

Protein: Protein should be given 1-1.5g/kg body weight to maintain body weight and also promote anabolism. Protein may need to be restricted for the patient suffering from renal or liver disease.

Fat: Low fat diet is recommended to minimize the diarrhoea.

Fluid: To maintain body temperature and minimize dehydration sufficient fluid should be given.

Vitamins and Minerals: A vitamin and mineral supplement should be provided to maintain the body function. Mega doses of vitamins and minerals should be avoided because excessive doses of nutrients may result in immunosuppressive.

Dietary consideration:

Following points should be considered to improve the appetite of the patients:

1. Provide soft food
2. Frequent small meal serving should be encouraged.
3. Food should be considered according to the patient likes and dislikes.
4. Add sugar and flavorings to improve acceptability of liquid supplements.
5. Avoid extremely hot or cold foods, spicy or acidic foods.

Prevention:

Prevention is the only Cure of HIV/AIDS.

It can be easily prevented by the following way:

Safe Sex: Sex with single, faithful and uninfected partner is safer sex practice. Avoid sex with multiple partners. Use condom to prevent the risk.

Safe Blood: Make sure blood is tested before transfusion. Use blood that is certified anti HIV non - reactive.

Safe Needles: Before using the needles, syringes make sure they are sterile.

Safe Motherhood: Avoid pregnancy if infected with HIV.

Safe razor and Blade: Never share shaving blades and razors during haircut.

Future Challenges:

HIV/AIDS poses a great challenge in terms of how to regulate it. The major challenge is to reach large number of population. Challenges include:

- Strengthening state level capacity in all aspect of programming.
- Care and support of AIDS patients.

- Organising counselling and testing centres in a supportive environment.
- Focus on HIV/AIDS prevention programme.
- Ensuring that prevention programmes take place within human rights framework.

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