

Medical Nutrition Therapy and HIV

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Introduction

Mr. W is in the last stage of HIV AIDS. He visited the rehabilitation program last year. He has been admitted to the hospital with a history of weight loss, weakness, and intractable diarrhea. His height is 70 inches and his weight has dropped from 180 lbs. to 110 lbs. He is also suffering from fever and night sweats. Physical examination reveals swollen lymph glands, tongue lesions of herpes simplex and ulcers in the perennial region. Further tests indicated depressed T-cell levels and the presence of *Pneumocystis carinni*. HIV infection antibodies and HIV infection test came for positive for Mr. W. While in the hospital he developed several other symptoms: anorexia, fever, fatigue, nausea, vomiting, watery diarrhea, and rectal incontinence. His temperature was 103F (39.8C) and was treated with antibiotics to which he did not respond. The amount of diarrhea increased markedly, necessitating intravenous hydration. Esophageal candidiasis and a duodenal infection were also developed in his body. The patient did not tolerate a soft diet or nutritional supplements, continued to lose weight, and had severe anorexia, abdominal cramping, and bloating. In all kinds of nutritional assessments, he falls deficient. His BMI was also decreased, along with total protein and serum albumin. His muscle mass also decreased due to this nutritional deficiency. All these symptoms indicate that Mr. W is in the last stage of HIV AIDS. He is in the last and also the most hopeless stage of HIV/AIDS. As it is observed that no medicine is able to work on his diseases and illnesses. On the other hand, he is losing great amount of body weight, which indicates that he will soon be able to live due to lack of energy in the body. He needs to have proper nutritional guide and plan for his condition (Anonymous, 2001).

Discussion

Major Clinical Implications and their Effect on Nutritional Status

Hepatitis (C, B, and E), Liver infection, and other liver related complications are major clinical complications in HIV/AIDS patients. Liver-related complications in HIV individuals are developed through the mechanism of different hepatitis viruses in the body. In patients, such as, Mr. W, who have a medical history of drug abuse as well, Outbreaks of severe and fulminant hepatitis are common (Soriano, Barreiro & Sherman, 2013). Reduced food intake in Mr. W makes him more likely towards eating and he has a very short appetite. This makes such patients avoid food and food stuff. The loss of weight that he has recently experienced is due to this condition. There are several reasons for this condition. Mouth sores and fevers are two most common reasons behind patient's lack of appetite. When the mouth is sore, patient feel the pain whenever the spices or the salt comes onto the surface of the tongue or mouth. Similarly, in high fever, patient have the taste of bile in his mouth, which makes them hate any kind of food or flavor that, comes into his mouth. On the other hand HIV/AIDS patients are very much affected by depression, which also makes them have less nutritional benefit. Depression is caused in the patients when they think that they are unable to deal with fatal diseases, such as, AIDS. This depression is broadened through social stigma, which will cause people to reduce their food intake and lose their appetite. Due to dehydration, Mr. W's body is unable to absorb nutrients present in food, which causes more severe diarrhea. Other parasites and bacterial germs caused by this condition give rise to further dehydration (Anonymous, 2001).

Goal of Nutritional Therapy

In certain or usual cases, where HIV infections been assessed as positive there has been recorded loss of weight, fatigue, and constant morphologic and metabolic changes that are seen in infected patients. Other nutrition related concerns are related to obesity, hypertension and diabetes as well. In order to minimize the risk of increase in above mentioned health issues, a constant check of medical and nutritional factors is crucial, and should be taken as a matter of priority. Medical professional should initiate an assessment of medical history of the patients, which should be related to the existing nutrition related to issues, as well as nutrition concern that may affect cardiovascular, cancer and other neurological concerns that have a direct effect on the health of the patient. Clinical assessment should also include the assessment and possibility of any future infections that may have a negative effect on the on-going therapy, health related activities and social setup and structure of a patient. Moreover biological assessments are also vital and should be a part of the assessment process as well. This should include, but not should be limited to the identification of micronutrients and anemias. Other regular assessment should have the goal of bringing forward future analysis of levels related to blood lipid, vitamin levels, liver enzyme levels and renal functions, which in turn can help in assessing other nutritional deficiencies that can be correlated to other biochemical issues.

Route of Feeding

Most appropriate route for feeding the nutrition support of HIV patients is through social awareness and nutritional guidance given by medical sectors in the society. The AIDS and HIV adolescent sufferers use numerous strategies to manage the stigma. Globalization is one of the factors which is very important to be considered regarding social problems related to HIV/AIDS.

Globalization has often been considered to be related only to trade and economic purposes. However, globalization has become a phenomenon which is reshaping our social environment especially health related affects. In today's world, globalization has been declared as a one of the factor of improving overall lifestyle of a society including health. Considering proper diet options by medical sectors have contributed to the growing awareness about the disease in countries. As a matter of fact, countries are able to share scientific researches in the field of medicine and research. These collaboration between countries helps in developing medical facilities to reduce chances of disease like HIV/AIDS. The advantage having nutritional guidance can be explained with an example of needle exchange program. Needle exchange program was initiated by different countries as a combined venture to reduce the prevalence of AIDS through used syringes. People were given new syringes on the exchange of old ones in this program. It is argued that spreading of HIV/AIDS through blood transmission can be controlled in an effective way through this program.

Nutritional supplements, which can be effective in Mr. W's situation, can be given through effective immunities. It has been observed that sexual contact between men is also contributing as the reason of transmission of HIV, accounting almost 64% of all the new recorded cases. It is estimated that the risk of HIV AIDS is 1% through anal discourse, which is especially high per sexual act in either homosexual or heterosexual contacts. Whereas, the risk of transmission due to oral sex is comparatively low. AIDS can be obtained by effective use of antiretroviral therapy that improves the severity of the condition but it does not completely restore the health. The patients who are treated with antiretroviral therapy for long term are at the mainstay of a number of complications which include factors that are associated with aging, manifestation of cardiovascular diseases, osteoporosis, cancer, and other end-organ medical

disorders. A lot of immunological abnormalities portray the enhanced effect of HIV posed on health persisted against the effective suppression of replication carried out by the virus. People can be guided about the risks of HIV AIDS through training and educational programs. These programs also enable people to adopt preventive measures for their safety. Nutritional guide for such patients should be focused on antibodies and immunities for the patients.

Conclusion

Overall quality of life of HIV patients can be reduced by providing necessary elements that their bodies require. It is very important to keep the immune system of such patients stronger so that their bodies are able to respond to the needs of treatment required for the disease. Several immunities can be utilized for improving the nutrition intake of such people as Mr. W. innate immunity is present at birth and provides the immediately active, first line, non- specific protection against an invading pathogen. The antigen recognition ability is innate and develops without exposure to the antigen. The innate immune response to a specific pathogen is same in 2 healthy persons and the system responds in the same way for any pathogen.

References

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Appendices



Figure 1: Nutrition & Food Safety.
Source: AIDS.gov, 2008.