



THE ROLE OF PHYSIOTHERAPY IN AIDS WASTING SYNDROME

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Abstract -Substantial loss of body mass occurs amongst Acquired immune deficiency syndrome (AIDS) wasting syndrome (AWS) patients. The objective was to assess the influence of exercise on the body mass in acquired immune deficiency virus wasting syndrome patients. Experimental research on sixty patients of thirty years to thirty five years found through purposive sample. The body mass significantly increases in all groups exercising for one hour three times a weeks during twelve to sixteen weeks. The parameters influence the magnitude of the increase. It was concluded that short-term exercise has a positive effect on AWS patients. The body mass increases significantly as a result of exercise.

Keywords- AIDS, syndrome

1. INTRODUCTION

Wasting refers to the process by which a debilitating disease causes muscle and fat tissue to "waste" away. Wasting is sometimes referred to as "acute malnutrition" because it is believed that episodes of wasting have a short duration, in contrast to stunting, which is regarded as chronic malnutrition. Wasting can be caused by an extremely low energy intake, nutrient losses due to infection, or a combination of low intake and high loss. Infections and conditions associated with wasting include tuberculosis, chronic diarrhea, AIDS, and superior mesenteric artery syndrome. The mechanism may involve cachectin - also called tumor necrosis factor, a macrophage-secreted cytokine.

Weight loss and wasting syndrome are two AIDS-related complications that, if not adequately treated, can be life threatening. In people with HIV, especially during periods of illness, the energy demands of the body increase. Turning fat into energy also requires a lot of work in the body. To help save energy, the body may go after protein to fuel its energy needs. This is because protein is much easier to convert into energy than fat. Also, protein is needed to help repair damaged organs and to replace immune system cells lost during periods of illness. There are, essentially, two different types of wasting. The first type reflects periods of rapid weight loss and muscle wasting. This type is most commonly found in people experiencing particular opportunistic infections. Given the benefits of anti-HIV therapy and prophylaxis, people living with HIV now stand a much better chance of either avoiding or recovering faster.

The second type reflects more gradual losses in both weight and muscle. Unlike the first type, which most often applies to people with AIDS, gradual wasting can occur at any time. It can also occur for any number of reasons and may

be due to HIV infection itself. It is known that exercise has a positive effect on healthy subjects, but patients with AWS are much more vulnerable. Doing exercise could therefore have a contrary effect on their health if the intensity is too high. On the other hand exercise may replete the LBM after wasting has occurred. Therefore this article will serve to create a clear view of the influence which exercise can have on the health of these patients.

2. STATEMENT OF THE PROBLEM

Regular progressive resistive exercise and moderate aerobic exercise is safe and beneficial for the person with HIV infection during any stage of their illness. Through the use of exercise, the patient can play an important role in the management of their illness, while improving their quality of life.

3. OBJECTIVE

To assess the role of physiotherapy on the lean body mass in acquired immunodeficiency virus wasting syndrome patients.

4. PURPOSE OF THE STUDY

As the number of patients with HIV/AIDS increases, the demand on the health care system will increase. This demand will place greater emphasis on maximizing the patient's independence, minimizing the disability, and increasing the patient's functional status so their quality of life may improve.

5. HYPOTHESIS

5.1. Null Hypothesis

There is no role of physiotherapy on the lean body mass of patients with the AIDS wasting syndrome.

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5.2. Research Hypothesis

There is role of physiotherapy on the lean body mass of patients with the AIDS wasting syndrome, here by rejecting the null hypothesis.

6. SIGNIFICANCE OF THE STUDY

Patients are surviving longer than ever before with HIV. AIDS and with a potential for a cure, or at least drugs that slow the progression of this disease, physical therapy can play an important role in maximizing the patients' quality of life.

7. NEED OF THE STUDY

Those who exercised derived numerous and significant benefits, including improved cardiopulmonary function, improved quality of life, and slower progression to AIDS-related morbidity and mortality.

8. SCOPE OF THE STUDY

The lean body mass is a strong predictor of AIDS related death, it also influences the relative energy expenditure of each action taken. This increase in lean body mass must be seen as a relevant gain for these patients.

9. METHODOLOGY

Two forms of exercises are used: aerobic training and progressive resistance training. Aerobic exercise may be built up through different forms of exercise but generally conducted on a cycling ergo-meter. In healthy persons aerobic exercise will lead to increased strength of muscles in combination with an improvement in cardiovascular function and a positive effect on the psychological status. Progressive resistance training (PRT) will primarily increase the strength of muscle tissues. Furthermore, it alters the muscle composition to contain relatively more LBM. PRT consists of isotonic or isometric exercises. Weightlifting was generally preferred, due to the relatively low cost. The majority of the study focus on PRT due to the influence this may have on the LBM, using aerobic exercise in addition in order to influence the cardio vascular function.

10. RESULTS

Sixty adults, aged 15–30 years old, of both genders, without regular physical activity who had diagnosed of HIV/AIDS history were enrolled. The strengths of major muscle groups increased with a corresponding improvement in sit-standing and walking 2.4 m tests. There were no changes in clinical conditions and body composition measures, but triceps and thigh skin folds were significantly reduced. Resistance training increased strength, improved physical fitness, reduced upper and lower limb skin folds, in HIV positive elderly patients without significant side effects.

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