شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

Effect of Inspiratory Muscles Training on Functional Capacity in Patients with Chronic Heart Failure

Thesis

Submitted in partial fulfillment of the requirement for Doctoral degree in Physical Therapy

By

Abeer Ahmed Abdel- Hamed Fargaly

Assistant lecturer at Physical Therapy Department For Cardiopulmonary Disorders and Geriatrics

Faculty of Physical Therapy
Cairo University
2007

Supervisors

Prof .Dr. Azza Abd El-Aziz Abd El-Hady

Professor of physical therapy for cardiopulmonary disorders &geriatrics, Faculty of Physical Therapy , Cairo University

Prof .Dr. Zeinab Mohammed Helmy

Professor of physical therapy for cardiopulmonary disorders &geriatrics, Faculty of Physical Therapy , Cairo University

Prof.Dr .Hamdy Soliman Mahmoud

Consultant of Cardiology ,National Heart Institute

Effect of inspiratory muscles training on functional capacity in patients with chronic heart failure /Abeer Ahmed Abdel-Hamed/ Supervisors: Prof .Dr. Azza Abd El-Aziz Abd El-Hady. Professor of physical therapy for cardiopulmonary disorders &geriatrics, Faculty of Physical Therapy ,Cairo University, Prof .Dr. Zeinab Mohammed Helmy, Professor of physical therapy for cardiopulmonary disorders &geriatrics, Faculty of Physical Therapy , Cairo University ,Prof.Dr .Hamdy Soliman Mahmoud ,Consultant of Cardiology ,National Heart Institute. Doctoral thesis P.T.,2006

Abstract

The aim of this study was to investigate the effect of inspiratory muscles training on parameters of functional capacity(VO2max and AT) in CHF. and to clarify other possible effects including; sympathetic overactivity and ventilatory function tests and gas exchanges during exercise. Forty male patients with chronic heart failure, Their ages ranges from 50-65 years old with EF ≤40% in stable condition.. They were randomly divided into two equal groups: IMT, and control group. IMT group participated in inspiratoray muscle training program, three times a week for three months and control group received medical treatment only. The results showed a significant increase in the of VO2max, AT, and maximum oxygen pulse with significant reduction in VE the IMT group, over the control. While the parameters, peak work load ,and maximum heart rate ,were not significantly altered in both groups. Parameters of HRV, showed a significant increase in HF in the IMT group, with significant reduction of LF/HF where as their was no significant changes in LF with.significant increase in the inspiratory muscle strength(MIP) and, rating of the perceived exertion(Borg scale) ,with a significant reduction in the resting cardiovascular parameters .

(**Key Words**: Chronic heart failure – Inspiratory muscle training – Functional capacity – Heart rate variability)

Dedication

*To my **parents** for their support*

*To my **husband** for his help*

*To my **children** for their patience*

ACKNOWLEDGMENT

First and above of the all, I would like to kneel Thank **ALLAH**, who provided me with the effort and patience to complete this work.

I would like to thank Prof .**Dr. Azza Abd El-Aziz Abd El-Hady**, Professor of physical therapy for Cardiopulmonary Disorders &Geriatrics, Faculty of Physical Therapy , Cairo University, for her great support and advice that give me the confidence and encouragement to start and complete this study.

My gratitude appreciation and deep thanks to **Prof. Dr. Zeinab Mohammed Helmy**, Professor of Physical Therapy for Cardiopulmonary Disorders, & Geriatrics. Faculty of physical Therapy, Cairo University, for her valuable advice, comments and kind supervision throughout the study.

I would like also to express my sincere thanks to **prof Dr. Hamdy Soliman mahmoud**, consultant of cardiology at National Heart Institute for his unlimited support and wise counsel.

I would like also to thank **Prof. Dr. Mustafa Hussein Gad,** Professor and head of physical Therapy unit at National Heart Institute, for his cooperation with me through the conduction of this work.

My deep appreciation and profound gratitude to **Dr/Hussam Fawzy** , cardiology specialist at National Heart Institute for his sincere help. I wish also to thank all the staff member of the Holter department at National Heart Institute

Special appreciation to **all members of** Physical **Therapy** unit at National Heart Institute for their help to conduct this work.

Words fail to express my deepest gratitude, and sincere thankfulness for **prof. Dr. Hanan Ahmed Rushdy** Dean of Faculty of Physical Fitness for Girls, Gezeera ,Helwan University. for her help and cooperation to conduct this work

Last but not least, special thanks for **all patients** participated in the study for their time, and cooperation through conducting of this work.

List of content

LIST OF FIGURES