

بسم الله الرحمن الرحيم



-C-02-50-2-





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرونيلم





جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة يعيدا عن الغيار













بالرسالة صفحات لم ترد بالأصل



BIJICA

ROLE OF EXERCISE REHABILITATION IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Thesis

Submitted in Partila Fulfillment of Master Degree in Chest Diseases and Tuberculosis

By

Nabil Ali Abdel Ghaffar Hiba
(M.B.B.Ch)

Supervised By Prof. AMR BADR EL-DIN HAMDR

Prof. of Respiratory Medicine Benha Faculty of Medicine

Prof. SAMIA MOHAMED ABDEL-MONEM

Prof. of Rheumatology Benha Faculty of Medicine

Dr. ALI ALI OKAB

Ass. Prof. of Rheumatology Medicine Benha Faculty of Medicine

Dr. AHDAF AHMED ENAN

Ass. Prof. of Respiratory Medicine Benha Faculty of Medicine

Benha Faculty of Medicine Zagazig University

110 at/



﴿إِنَا نَكُنَ نَذِلْنَا الْحَاكِمِ وَإِنَا لَهُ لِكَافِضُلُونَ﴾

الآية (٩) من سورة الحجر

المعابن بنقبل عنهم أكسن ما عملوا وبناله عن سبنانهم المعالمة عملوا وبناله عن سبنانهم المعالمة المعالمة

الآية (١٦) من سورة الأحقاف

صدق الله العظيم

ACKNOWLEDGMENT

First of all; I thank Allah who helped me to bring this work to light.

My deepest gratitude must be expressed to Prof. Amr Badr El-Din Hamdy, Prof. of Respiratory Medicine Benha Faculty of Medicine Zagazig University for his great support and great help throughout the work.

Alos I wish to thank **Prof. Samia Mohamed Abdel-Monem**, Prof. of Rheumatology and Rehabilitation Behna Faculty of Medicine Zagazig University for her great help and advice throughout the work.

I whish to thank **Dr. Ali Ali Okab**, Ass. Prof. of Respiratory Medicine Benha Faculty of Medicine Zagazig University for his great help and advice throughout the work.

I would like to thank **Dr. Ahdaf Ahmed Enan**, Ass. Prof. of Respiratory Medicine Benha Faculty of Medicine Zagazig University for her great help and advice throughout the work.

I would like to express my deepest gratitude to my family.

I would like to thank every person who make any contribution to make this work come to light.

CONTENTS

	Page No
Aim of the work	1
Review of Literature:	2
- Review of COPD	2
- Exercise Physiology	18
- Pulmonary rehabilitation	28
 Subjects and Methods 	61
 Results 	71
 Discussion 	98
 Conclusion 	104
 Recommendations 	105
- Summary	106
 List of Abreviation 	110
 References 	112
 Appendix 	136
Arabic summary	153

INTRODUCTION

INTRODUCTION

Chronic Obstructive Pulmonary Disease (COPD) is a frustrating illness not only for patients but also for their physicians whose medical treatment has only partial success in alleviating symptoms and improving functional capacity (Clark, 1995).

One key component in the management of patients with COPD is pulmonary rehabilitation, the corner stone of which is exercise training. Improvements in physical function, and health-related quality of life are supposed benefits of exercise training (Lacasse, et al., 1996).

Unfortunately, pulmonary rehabilitation is generally not prescribed until there is significant symptoms with an advanced stage of the disease (Berry et al., 1999).

AIM OF THE WORK

AIM OF THE WORK

The aim of the present work was to assess the value of exercise rehabilitation in improving physical performance and health related quality of life in Egyptian patients with Chronic Obstructive Pulmonary Disease (COPD).

REVIEW OF LITERATURE

CHRONIC OBSTRUCTIVE PUULMONARY DISEASE (C.O.P.D)

DEFINITIONS:

Chronic obstructive pulmonary disease is defined as a disease state characterized by the presence of airflow obstruction due to chronic bronchitis or emphysema, the airflow obstruction is generally progressive, may be accompanied by airway hyper-reactivity, and may be partially reversible (American Thoracic Society, 1995).

Chronic bronchitis is defined as the presence of productive cough for three month in each of two successive years in a patient in whom other causes of chronic cough have been excluded (American Thoracic Society, 1962).

Emphysema is defined as abnormal permanent enlargement of the air spaces distal to the terminal bronchioles, accompanied by destruction of their walls and without obvious fibrosis. Destruction is defined as lack of uniformity in the pattern of respiratory air spaces enlargement, the orderly appearance of the acinus and its components is disturbed and may lost (Snider et al., 1985).

RISK FACTORS for C.O.P.D:

It is clear that C.O.P.D does not have a single cause, and that multiple factors must act in concert for the disorder to become clinically evident (American Thoracic Society, 1995).

1-Cigarette Smoking:

Tobacco smokers have 80 to 90% of the risk of developing C.O.P.D. They have a higher prevalence of lung function abnormalities, respiratory symptoms, and all forms of chronic obstructive airway disease. Cigarette smokers have a greater rate of decline in FEV₁. Only about 15% of cigarette smokers will develop clinically significant C.O.P.D (American Thoracic Society, 1995). It is important to identify the factors that determine why only 15% of smokers develop COPD; genetic factors are sought. A polymorphism in the gene for the enzyme microsomal epoxide hydrolase responsible for the metabolism of reactive epoxide intermediates which may be generated in tobacco smoke has been