hossam maghraby

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

hossam maghraby

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

hossam maghraby

شبكة المعلومات الجامعية

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 بعيدا عن الغبار

hossam maghraby

شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة

hossam maghraby

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

Blood Gases Response to Different Body Positions in Patients with Chronic Obstructive Pulmonary Disease in Intensive Care Unit

By

Khaled Mohamed Assem

B.Sc. PT. (1989)

A Thesis
Submitted in Partial Fulfillment for the Requirement of the Master Degree in Physical Therapy

Cairo University
Faculty of Physical Therapy
Department of Physical Therapy
for Cardiopulmonary Disorders
and Geriatrics

2006

Supervisors

Prof. Dr. Awny F. Rahmy
Prof. of Physical Therapy for Cardiopulmonary disorders and Geriatrics
Faculty of Physical Therapy
Cairo University

Prof. Dr. Mohamed Sherief Mohamed Elbohy
Prof. of Chest Diseases
Faculty of Medicine
Ain Shams University

Dr. Alsayed Abd Elhamed Shanab
Assistant Professor in the Department of Physical Therapy for Cardiopulmonary Disorders and Geriatrics
Faculty of Physical Therapy
Cairo University

2006

﴿ بسم الله الرحمن الرحيم ﴾

" فَأَمَّا الزَّبَدُ فَيَذْهَبُ جُفَاءً

وَأَمَّا مَا يَنفَعُ النَّاسَ فَيَمْكُثُ فِي الأَرْضِ

"

صدق الله العظيم

"سورة الرعد، آية ١٧"

ACKNOWLEDGMENT

First of all, I would like to kneel thanking ***"Allah"*** for giving me the ability, energy and patience to accomplish this work.

It is a great pleasure to express my deepest sincere appreciation and gratitude to ***Prof. Dr. Awny F. Rahmy*** Prof. of Physical Therapy for Cardiopulmonary disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his valuable supervision and kind advice throughout the whole work. His precious remarks and continuous guidance was very helpful and beneficial for me.

I'm greatly honored to express my great gratitude, appreciation and deepest thanks to ***Prof. Mohamed Sherief Mohamed Elbohy*** Prof. Dr. of Chest Diseases, Faculty of Medicine, Ain Shams University. He gave me a great deal of his valuable time and effort for this work. His mastery advice, constructive criticism and continuous support enabled me to achieve this work.

Deepest thanks to ***Prof. Dr. Alsayed Abd Elhamed Shanab*** Assistant Prof. in the department of Physical Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his sincere assistance, valuable guidance and continuous encouragement throughout this work.

I'm greatly honored to express my deepest thanks to my patients.

Khaled Mohamed Assem

2006

DEDICATION

To The Spirit
Of My Father

Blood Gases Response to Different Body Positions in Patients with Chronic Obstructive Pulmonary Disease in Intensive Care Unit.

By : Khaled Mohamed Assem. Faculty of Physical Therapy – Cairo University, M.Sc. thesis, Department of Physical Therapy for Cardiopulmonary Disorders and Geriatrics

Supervisors : Prof. Awny F. Rahmy, Prof. Mohamed Sherif Mohamed Elbohy, Prof. Alsayed Abd Elhamed Shanab

Abstract

The purpose of this study was to evaluate blood gases response to different body positions in patients with chronic obstructive pulmonary disease in intensive care unit. Fifty four chronic obstructive pulmonary disease patients, stage III, with mean age 65 $\pm$ 5.35 years participated in this study. Three blood samples was drawn from each patient at base line supine position, at side lying position and at prone position, with interval of 2 hours between each sample. Physical therapy program was performed to the patient at each position. The results showed that there was highly significant improvement of blood gases (PaO_2, SaO_2), at prone position and statistically significant improvement of prone position with statistically significant differences between prone lying position and side lying and supine lying positions. From the obtained results in this study, it can be concluded that prone lying position may represent a beneficial therapeutic modality to improve blood gases in chronic obstructive pulmonary disease patients in intensive care unit.

List of Abbreviations

ABG	Arterial Blood Gases
AECOPD	Acute Exacerbation of Chronic Obstructive Pulmonary Disease
ATP	Adenosine Triphosfate
bpm	Beat Per Minute
brpm	Breath Per Minute
COPD	Chronic Obstructive Pulmonary Disease
CRP	Creative Protein
ECG	Electro Caridio Graphy
FEV_1	Forced Expiratory Volume in 1 Second
Fig	Figure
FiO_2	Fraction of Inspired Oxygen
FVC	Forced vital Capacity
HCO_3	Arterial Blood Bicarbonate
HR	Heart Rate
ICU	Intensive Care Unit
LTB4	Leukotrin B4
MAP	Mean Arterial Pressure
mmHg	Mellimeter Mercury
NO_2	Nitrogen Dioxide
O_3	Ozone
$PaCO_2$	Arterial Carbondioxide Pressure
PA	Alveolar Pressure
PaO_2	Arterial Oxygen Pressure
PEEP	Positive End-Expiratory Pressure
pH	Hydrogen Ion concentration
PP_l	Pleural Pressure
RR	Respiratory Rate
TNF	Tumor Necrosis Factor
SaO_2	Arterial Oxygen Saturation
SLPI	Secretory leukoprotenase inhibitor
SO_2	Sulpur Dioxide
V/Q	Ventilation / Perfusion Ratio

List of Figures

List of Figures *(Cont.....)*

List of Tables