بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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بالرسالة صفحات

لم ترد بالأصـــل

EFFECT OF DIFFERENT BODY POSITIONS ON VENTILATION IN PATIENTS WITH UNILATERAL LUNG DISEASES

Thesis

Submitted for partial Fulfillment of the Requirement of the Master Degree in Physical Therapy

By

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2007

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بسم الله الرحمن الرحيم

﴿ وأنزل الله عليك الكتاب و
الحكمة وعلمك ما لم تكن
تعلم وكان فضل الله عليك
عظيما ﴾

صدق الله العظيم
سورة النساء(آية 113)

ACKNOWLEDGMENT

Praise and thanks be to ALLAH, the most merciful for assisting and directing me to the right way.

I would like to thank ***Dr. Al Sayed Abd El Hameed Shanb,*** *, Professor of Physical Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his great support and advice that gave me the confidence and encouragement to start and complete this study as the best as I could do.*

My deepest thanks to ***Dr. Akram A Aziz Sayed*** *Lecturer of Physical Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his constant supervision and advice to complete this work.*

My gratitude appreciation wishes to ***Dr. Wafa Mohammed Ahmed*** *,Lecturer of chest Faculty of medicine, Kasr al Aini Hospital Cairo University, for her sincere supervision, valuable advice, constructive criticism and continuous support.*

My deepest thanks to ***Dr. Khaled Aid Sobhy****, Professor of chest Faculty of medicine, Kasr al Aini Hospital, Cairo University, for his great support and advice.*

Finally I'm very grateful to all participants who shared in this study. Without whom this work wouldn't have been possible

Effect of Different Body Positions on Ventilation in Patients with Unilateral Lung Diseases ,By Mohammed abd El Haleem Mohammed Shendy. Faculty of Physical Therapy Cairo university, Department of Physical Therapy for cardiopulmonary disorders and geriatrics.
Supervisors: Prof. Dr. Al Sayed Abd El Hameed Shanb, Dr. Akram Abd El Aziz, Dr. Wafa Mohammed Ahmed. **(Master Thesis)**

Abstract

The aim of this study was to evaluate the effect of different body positions on ventilation in patients with unilateral lung diseases. Thirty patients with unilateral lung diseases their age ranged from 25 to 55 years old participated in this study. Ventilatory function test was performed for each patient after thirty minutes of assuming each of the following body positions (sitting, supine, side lying on the affected position and side lying on the unaffected position).

The results showed that there was highly improvement in ventilatory function at sitting position .There were statistically significant differences between sitting position and other positions and between lying on the unaffected and lying on the affected side .

It was concluded that sitting position is the best position for pulmonary ventilation and side lying on the unaffected position is the position of choice for improvement of ventilation perfusion ratio in patients with unilateral lung diseases.

Keywords: Ventilatory function. Spirometry. Positioning. Unilateral lung diseases.

List of abbreviations

ALI	Acute lung injury.
ARDs	acute respiratory distress syndrome
ARF	acute respiratory failure
CaO_2	arterial oxygen content
Cld	Dynamic lung compliance.
COP	Colloid osmotic pressure.
COPD	Chronic obstructive pulmonary diseases
ERV	Expiratory Reserve Volume.
ESR	Erythrocyte sedimentation rate.
FBC	Full blood count
Fig	Figure
FIO_2	Fraction of inspired oxygen
FRC	Functional residual capacity.
FEV_1/ FVC	Timed forced expiratory volume-Forced vital capacity
HFOV	High frequency oscillatory ventilation
IC	Inspiratory Capacity.
ICU	Intensive care unit.
IRV	Inspiratory reserve volume
LDH	Lactate dehydrogenase.
LSD	Least significant differences
MEP	Mid expiratory pressure.
MVV	Maximum Voluntary Ventilation.
P_pA	Partial Alveolar pressure.
P_aCO_2	partial arterial carbon dioxide pressure

P_aO_2	partial arterial oxygen pressure
PEFR	peak expiratory flow rate.
P_{pl}	Intapleural pressure.
PVR	Peripheral vascular resistance.
RR	Respiratory rate
RV	Residual volume
SD	Stander deviation
Sec	Second
TLC	Total lung capacity
ULD	Unilateral lung disease.
VC	Vital Capacity.
Vt	Tidal volume.
V/Q	Ventilation / perfusion ratio.
$\Delta V/\Delta P$	Change of volume/change of pressure.
WCC	White cells count

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