Mona maghraby

بسم اللّه الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني

Mona maghraby

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

Mona maghraby

بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل

STUDY OF ATRIAL NATRIURETIC PEPTIDE LEVEL IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE DURING STABLE AND DECOMPENSATED CONDITIONS

Thesis

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BY

AHMED ABD EL-SADEK MOHAMED
(M.B., B.Ch.)

Supervisors

PROF. MEDHAT FAHMY NEGM
Prof. and head of Department of chest diseases and tuberculosis
Benha Faculty of Medicine

DR. MAGDY MOHAMED OMAR
Lecturer of Chest diseases& tuberculosis
Benha Faculty of Medicine

DR. MAGDY ABUL FOTOUH ABU-AMERAH
Lecturer of Cardiology
Benha Faculty of Medicine

DR. AWAD MOHAMED EL-ABD
Lecturer of Medical Biochemistry
Benha Faculty of Medicine

Benha Faculty of Medicine
Zagazig University
1999

« بسم الله الرحمن الرحيم »

وعلمك مالم تكن تعلم وكان فضل الله عليك عظيما.

صدق الله العظيم

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INTRODUCTION

INTRODUCTION

Atrial natriuretic peptid (ANP) is a recently discovered polypeptide. Little has been written about this peptid in lung diseases, although expanded researches were done in the different cardiac conditions. It is an important hormonal regulator of salt and water and of arterial blood pressure ***(Di-Nardo et al, 1992).*** In the lung, it is synthesized by type II alveolar cells and respiratory epithelial cells. It is also localized in the smooth muscle cells of the pulmonary veins (not the arteries) and superior vena cava ***(Springall et al., 1988).*** It has been recorded in the pleural fluid in patients with congestive heart failure ***(Vesely et al., 1989).***

The lung is the first and an important clearing organ for ANP ***(Di-Nardo et al., 1996).*** In addition to natriuresis and arterial vasodilatation including pulmonary arteries, ANP produced a C-GMP mediated broncho-relaxation and protect against histamine induced bronchoconstriction ***(Kang et al., 1993).*** It may prevent pulmonary edema by increasing C-GMP, decreasing intracellular ca^{++} and stabilizing tight junctions ***(Di-Nardo et al., 1996).*** It also stimulates surfactant production ***(Ishii et al., 1989).***

These beneficial effects have led to the production of inhaled, oral and intravenous ANP to be used to modify bronchial reactivity and tone. However, as a peptid, ANP is not orally bioactive and inhalational studies for demonstrated only a mild effect ***(Hulk et al., 1994).***

AIM OF THE WORK

The aim of this work was to study changes of ANP in stable and decompensated cases of chronic obstructive pulmonary diseases (COPD) and to correlate these ANP changes with right atrial and right ventricular functions.

REVIEW

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

DEFINITIONS

Chronic obstructive pulmonary disease (COPD) 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 hyperreactivity, and may be partially reversible ***(American thoracic society, 1995).***

Chronic bronchitis is defined as the presence of chronic productive cough for 3 months in each of two successive years in a patient in whom other causes of chronic cough have been excluded ***(American thoracic Society, 1995).***

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 ***(American thoracic Society, 1995).*** Destruction is defined as lack of uniformity in the pattern of respiratory air spaces enlargement, the elderly appearance of the acinus and its components is disturbed and may be lost ***(Snider et al., 1985).***

RISK FACTORS FOR COPD

It is clear that COPD does not have a single cause, and that multiple factors must act in concert for the disorder to become clinically evident ***(Baum and wolinsky, 1994).***