Study of Plasma Selenium in Patients with Fatty liver

Thesis

Submitted for partial fulfillment of

Master Degree of Internal Medicine

By

Manal Sabry Mohamed

Supervisors

****

Prof. Dr. Mohamed Awad Allah Sallam

FRCP (Lond.), FRCP (Glasg.), FACP (USA)

Prof. of Internal Medicine - Ain Shams University

Prof. Dr. Ahmed Hasanein Abd-El Karim

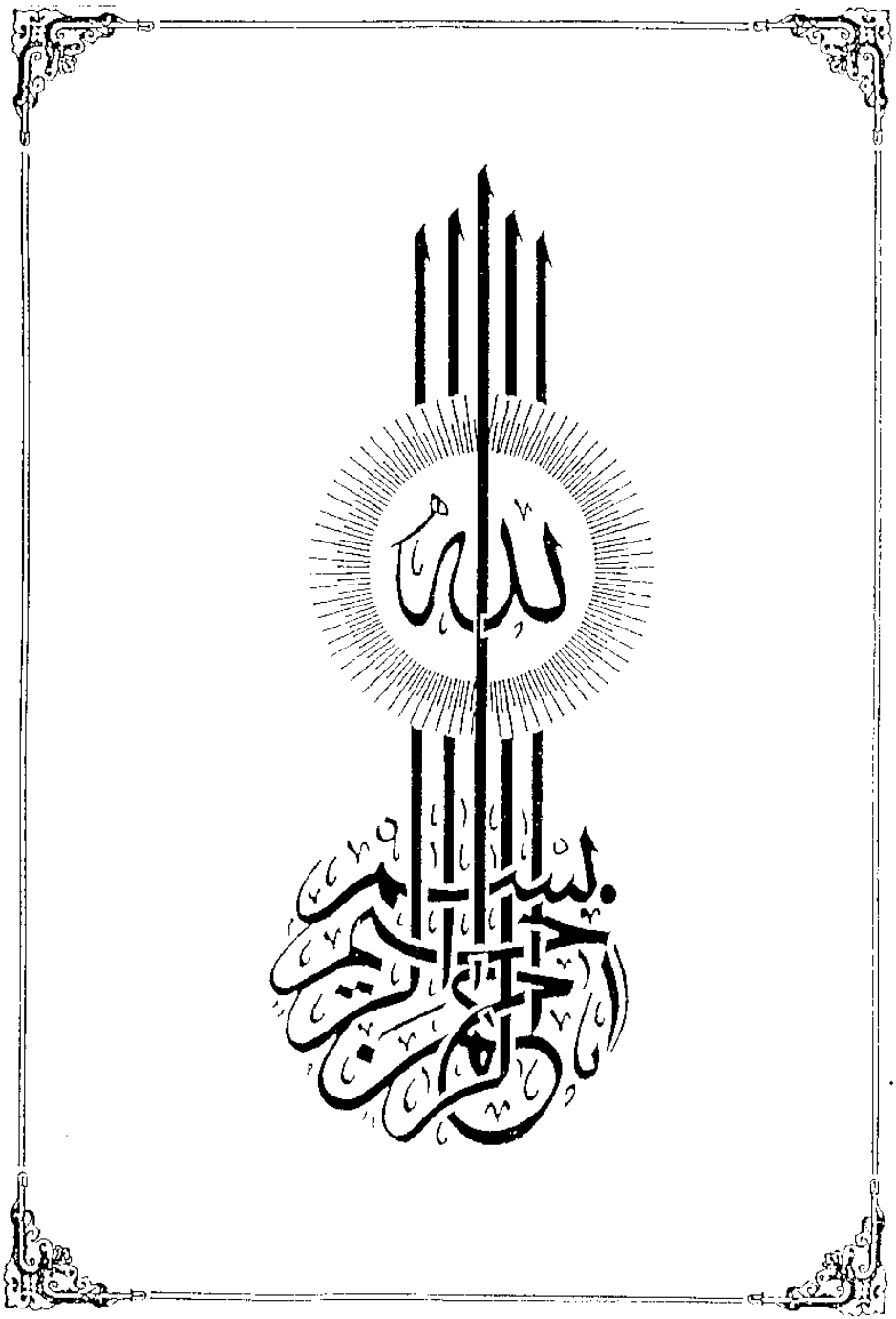
Prof. of Community and Industrial Medicine -Ain Shams University

Dr. Amira Ahmed Salem

Lecturer of Internal Medicine - Ain Shams University

Faculty of Medicine - Ain Shams University

(1996)



بسم الله الرحمن الرحيم

وفوق كل ذي علم عليم

صدق الله العظيم

Acknowledgment

First of all,
I AM GREATLY HONORED TO EXPRESS MY THANKS TO GOD.

I would like to express my thanks and gratitude to **Prof. Dr. Mohamed Awad Allah Sallam,** *Prof. of Internal Medicine, Ain Shams University. He sacrified a good deal of his valuable time and has been too kind, keen and supportive.*

Also I would like to express my gratitude to **Prof. Dr. Ahmed Hasanein Abd-El Karim,** *Prof. of Community and Industrial Medicine, Ain Shams University for guidance and support throughout the work and specially his help in the practical part.*

Many and deep thanks to **Dr. Amira Ahmed Salem,** *Lecturer of Internal Medicine, Ain Shams University for her help, cooperation and guidance.*

Manal Sabry

Table of Contents

Introduction and Aim of work

Study of Plasma Selenium In Patients With Fatty Liver

Introduction

Selenium is one member of a group of elements which, although present in minute amounts in tissues, are termed essential nutrients. In accordance with present knowledge, the National Academy of Science's description and dietary recommendations, the inorganic elements or minerals were treated under four headings ***(Howard et al., 1977).***

First, the essential macro-nutrients (needed in amounts of 100 mg/day or more) as : calcium, phosphorous, sodium, potassium, chlorine, magnesium and sulfur.

Secondly, essential micronutrients (trace elements needed in amounts less than a few mg/day) as iron, copper, cobalt, zinc, manganese, iodine, molybdenum, selenium, fluorine and chromium.

Thirdly, the micronutrients that may be essential for human as tin, nickel, silicon, vanadium, and fourthly, the trace contaminants as lead, cadmium, mercury, arsenic, barium, strontium, boron, aluminum, beryllium and rubidium.

Although the essential minerals are present in only a small fraction of the total body tissue they are required for various metabolic processes in body metabolism. They are inter-related to each other so that a deficiency of one inorganic element may affect the function of other.

Additionally, the quantity of an essential mineral may not indicate its importance in body functions. a very small amount of one mineral can be essential as large quantities of another ***(Al-Rashid and Spangler, 1971)***.

Fatty liver is one of the common nutritional and metabolic liver diseases and it has many causes, the most frequent of them are, diabetes mellitus, obesity and alcoholism. Fatty liver previously was not believed to progress to cirrhosis until recently when many studies confirmed the presence of cirrhosis in initial biopsies ***(Itoh et al., 1987)*** and progression to cirrhosis in patient of fatty liver who were followed up several years ***(Lee, 1989)*** and this to the link between fatty liver and liver cirrhosis which is a serious illness affecting the community.

Aim of the work:

The aim of this work is to study plasma level of selenium in patients with fatty liver for the possibility of the presence of an inter-relationship. Such work, for the best of our knowledge has not been tackled.

Review of Literature