



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

Bv9E1

Leptin concentration in diabetic and non diabetic Egyptians

Thesis

Submitted in partial Fulfillment of the Requirements of the
Degree of Master in Biochemistry

By

Islam Mohamed Abdel-Mawlaa El-Nahrery

Under The Supervision of

Zeinab

Prof. Dr. Zeinab Zaki El-Dardiri

PROF. OF BIOCHEMISTRY,
AND HEAD OF BIOCHEMISTRY DEPARTMENT
FACULTY OF SCIENCE,
Ain-Shamas-University

Fadila gadallah

Prof. Dr. Fadila Ahmed Gadallah

PROF. OF INTERNAL MEDICINE,
FACULTY OF MEDICINE,
AIN-SHAMAS-UNIVERSITY

Naglaa

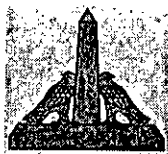
Dr. Naglaa Moustafa Sherif

LECTURER OF BIOCHEMISTRY,
FACULTY OF SCIENCE,
AIN-SHAMAS-UNIVERSITY

AIN-SHAMAS-UNIVERSITY
FACULTY OF SCIENCE,
BIOCHEMISTRY DEPARTMENT

2000

deep about



Leptin Concentration in Diabetic and non diabetic Egyptians

BY

Islam Mohamed Abdel-Mawlaa El-Nahrery

Under the Supervision of:

1-Prof. Dr. Zeinab Zaki El-Dardiri

Zeinab

Prof. of Biochemistry, and head of Biochemistry department, Faculty of science,

Ain-Shamas-University

2-Prof. Dr. Fadila Ahmed Gadallah

Fadila gadallah

Prof. Of internal medicine, Faculty of medicine,

Ain-Shamas-University

3-Dr. Naglaa Moustafa Sherif

Lecturer of Biochemistry, Faculty of science,

Ain-Shamas-University

اَللّٰهُمَّ صَلِّ وَسَلِّمْ عَلٰى
رَسُوْلِكَ وَآلِهِ وَارْحَمْهُمْ



ABSTRACT

Islam Mohamed Abdel-Mawlaa El-Nahrery - Leptin concentration in diabetic and non diabetic Egyptians - Ain-Shamas-University Faculty of science, Biochemistry department.

Leptin is the product of the obese gene (Ob) which expressed in the adipose tissue. Ob gene was isolated from human adipocyte cDNA library.

This work was designed to study the relationship between obese Egyptians with type II diabetes mellitus, controlled and uncontrolled to determine whether leptin secretion is impaired in diabetic patients and healthy control and to correlate such clinical situations with some biochemical parameters.

Sera of thirty Egyptian healthy controls subjects with no family history of diabetes (15 lean and 15 obese) and another (30) sera of Egyptian patients with non insulin dependant diabetes mellitus (NIDDM), type II (15 controlled and 15 uncontrolled diabetes), were included in this study. Clinical parameters associated with weight, height, age, sex and BMI were done for all subjects and patients. Blood HbA1c and fasting serum levels of FBS, TC, TG, Insulin and leptin were assessed.

It was found that there were a positive correlation between leptin and BMI in both control and diabetic subjects ($r = 0.647$ & $P < 0.001$ & $r = 0.467$ & $P = 0.009$) respectively. There was a significant increase in the leptin levels in females than that in males in all groups and there was a non-significant correlation between leptin and fasting blood sugar, glycatedhemoglobin, triglecrides and cholesterol ($r = 0.351$ - 0.295 & $P > 0.05$) in control and diabetic groups and insulin in diabetic groups ($r = 0.247$ & $P > 0.05$). Whoever, there was a positive correlation between leptin and insulin in control groups ($r = 0.622$ & $P < 0.001$). Comparison of leptin levels indicated that there was no difference in leptin levels between diabetic and control groups. Conclusion the leptin level is higher in females than in males, there is a positively correlated between leptin levels and BMI in all groups and insulin in normal subjects diabetes mellitus (NIDDM) has no effect on serum leptin level in Egyptians.

CONTENT

Page

ACKNOWLEDGEMENT	
ABSTRACT.....	
LIST OF TABLES	I
LIST OF FIGURES.....	II
LIST OF ABBREVIATIONS	III
I. INTRODUCTION AND AIM OF WORK	1
II. REVIEW OF LITERATURE.....	3
HISTORICAL BACKGROUND	3
LEPTIN STRUCTURE AND SYNTHESIS:	4
REGULATION OF SYNTHESIS:	6
TRANSPORT OF LEPTIN	15
LEPTIN RECEPTORS	15
LEPTIN ACTION.....	19
DEGRADATION AND EXCRETION	21
LEPTIN IN DIFFERENT DISEASES	22
III. SUBJECTS AND METHODS.....	46
I. SUBJECTS	46
II. METHODS	48
1. ESTIMATION OF LEPTIN.....	49
2. ESTIMATION OF INSULIN	53
3. ESTIMATION OF FASTING BLOOD SUGAR.....	56
4. ESTIMATION OF GLYCATED HEMOGLOBIN	58

5. ESTIMATION OF TRIGLYCRIDES	61
6. ESTIMATION OF TOTAL CHOLESTEROL.....	63
III. STATISTICAL ANALYSIS	65
IV. RESULTS	70
1. AGE	70
2. HEIGHT	71
3. WEIGHT	71
A. BMI.....	72
B. FASTING BLOOD SUGAR AND GLYCATEDHEMOGLOBIN.....	75
1. FASTING BLOOD SUGAR	75
2. GLYCATEDHEMOGLOBIN	78
C. TOTAL CHOLESTEROL AND TRIGLYCERIDS.....	81
1. TOTAL CHOLESTEROL.....	81
2. TRIGLYCERIDS	84
D. INSULIN AND LEPTIN	87
1. INSULIN	87
2. LEPTIN.....	90
CORRELATION	96
V. DISCUSSION.....	100
VI. SUMMARY.....	116
VII.REFERENCE	120
الملخص العربي	146