بسم الله الرحمن الرحيم

تم رفع هذه الرسالة بواسطة / سلوي محمود عقل

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

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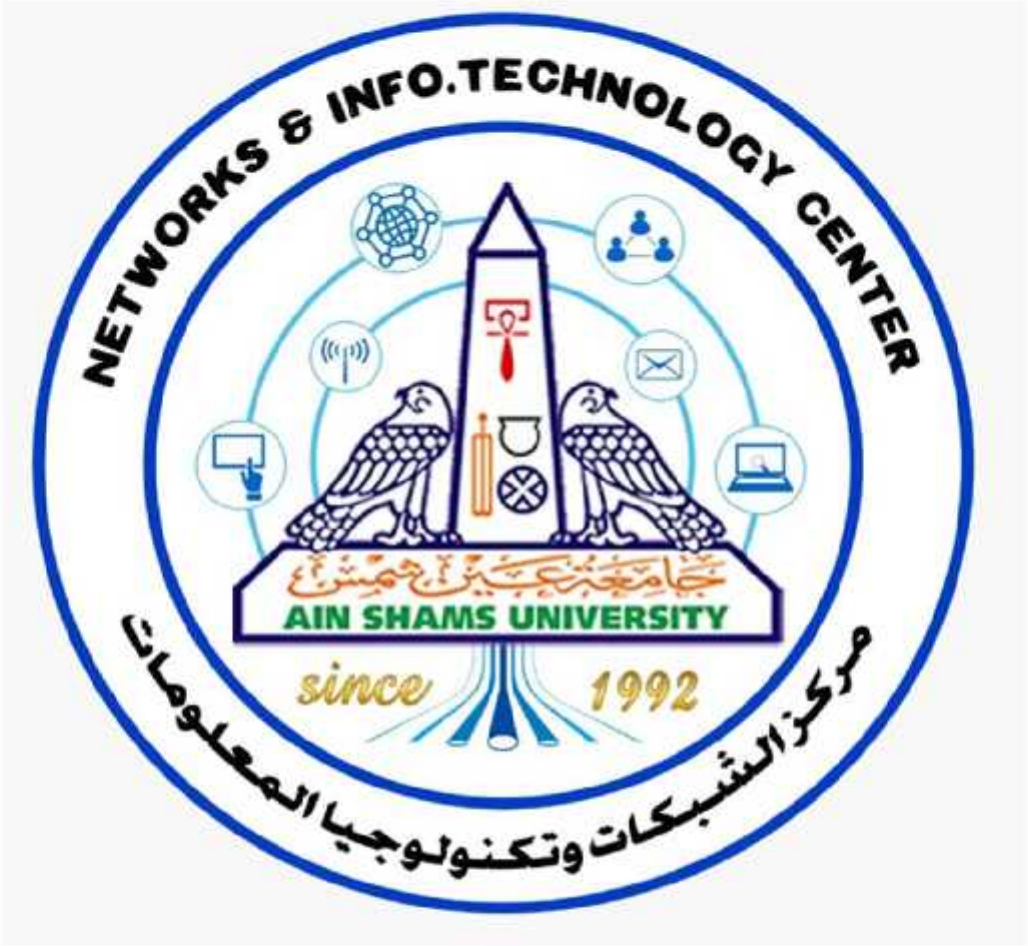

تم بحمد الله

Evaluation of serum visfatin level and its relation to insulin resistance in patients with inflammatory acne vulgaris

Thesis

Submitted for the Partial Fulfilment of M.Sc degree in
Dermatology, Venereology and Andrology
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Cairo
2021

Acknowledgment

First and foremost, I feel always indebted to ALLAH, *the Most Kind and Most Merciful.*

I'd like to express my respectful thanks and profound gratitude to **Prof. Dr. Nermeen Samy Abdel Fattah,** *Professor of Dermatology, Venereology and Andrology, Faculty of Medicine, Ain Shams University for her keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

I am also delighted to express my deepest gratitude and thanks to **Dr. Marwa Yassin Soltan,** *Lecturer of Dermatology, Venereology and Andrology, Faculty of Medicine, Ain Shams University, for her kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

List of Contents

List of contents	*Page*
List of abbreviations	**i**
List of tables	**iv**
List of figures	**v**
1. Introduction	**1**
2. Aim of the work	**5**
3. Review of literature	**6**
3.1. Chapter One: Acne vulgaris	**6**
3.1.1. Epidemiology	**6**
3.1.2. Age of onset	**7**
3.1.3. Etiopathogenesis	**7**
3.1.3.1. Release of inflammatory mediators	**8**
3.1.3.2. Role of TLRs	**10**
3.1.3.3. Follicular hyperkeratinization	**11**
3.1.3.4.P. Acne follicular colonization	**12**
3.1.3.5. Role of sebum in acne development	**13**
3.1.3.6. Role of hormones	**15**
3.1.3.7. Role of bacteria	**17**
3.1.3.8. Role of inflammation	**18**

3.1.4. Risk factors of acne vulgaris	**19**
3.1.4.1. Genetic factors	**19**
3.1.4.2. Diet	**20**
3.1.4.3. Smoking	**21**
3.1.4.4. Stress	**21**
3.1.4.5. Dyslipidemia	**22**
3.1.4.6. Insulin resistance	**23**
3.1.4.7. Sun exposure	**23**
3.1.4.8. Menstruation &pregnancy	**24**
3.1.5. Clinical picture	**25**
3.1.6. Grading of acne severity	**26**
3.1.7. Histological finding	**27**
3.1.8. Treatment	**27**
3.1.8.1. Topical agents	**28**
3.1.8.1.1. Benzoyl Peroxide	**28**
3.1.8.1.2. Clindamycin	**29**
3.1.8.1.3. Retinoids	**30**
3.1.8.1.4. Azelaic acid	**30**
3.1.8.1.5. Dapsone	**31**
3.1.8.1.6. Topical androgens	**32**
3.1.8.1.7. Metronidazole	**32**
3.1.8.2. Systemic agents	**33**

3.1.8.2.1. Isotretinoin	**33**
3.1.8.2.2. Spironolactone	**34**
3.1.8.2.3. Oral Antibiotics	**35**
3.2. Chapter Two: Visfatin	**37**
3.2.1. Structure	**38**
3.2.2. Distribution in organs	**38**
3.2.3. Functions	**38**
3.2.3.1. Visfatin as a cytokine	**38**
3.2.3.2. Visfatin as an enzyme	**39**
3.2.3.3. Insulin like function	**40**
3.2.3.4. Visfatin as antiapoptotic	**41**
3.2.4. Visfatin and systemic disease	**42**
3.2.4.1. Obesity, type 2 DM and Metabolic	**42**
3.2.4.2. Chronic kidney disease	**44**
3.2.4.3.POS	**44**
3.2.4.4. Preeclampsia	**45**
3.2.4.5. Acute coronary syndrome	**46**
3.2.5. Visfatin and insulin resistance	**46**
3.2.6. Visfatin and dermatological disease	**48**
4. Patients and methods	**51**
4.1. Sample method	**51**
4.2. Ethical consideration	**51**

4.3. Inclusion criteria	**51**
4.4. Exclusion criteria	**52**
4.5. Study procedure	**53**
4.6. Measurement of s.visfatin	**54**
4.7. Calculation of results	**56**
4.8. Data management and analysis	**56**
5. Results	**58**
5.1. Personal characteristics of the study group	**58**
5.1.1. of acne patients	**58**
5.1.2. of controls	**61**
5.2. Comparison between acne patients & controls regarding Visfatin, fasting insulin & HOMA-IR	**63**
5.3. Relation of visfatin serum level to BMI and IR Parameters	**68**
5.4. Comparison between moderate & severe acne cases regarding the s.visfatin levels	**69**
5.5. Correlation of serum Visfatin and HOMA-IR Scores	**71**
6. Discussion	**74**
7. Conclusions & Recommendations	**82**
8. Summary	**84**
9. References	**88**
Arabic summary	**-**

List of Abbreviations

AD	Atopic dermatitis
APCs	Acute phase cells
AppA-1	Apolipoprotein-1
AV	Acne Vulgaris
BMI	Body mass index
BP	Benzoyl Peroxide
BSA	Body Surface Area
CADs	Coronary artery diseases
CKD	Chronic kidney disease
COX	Cyclooxygenase
CRH	Corticotropin-releasing hormone
CRP	C reactive protein
DAMP	Damage associated molecular patterns
DHEA-S	Dehydroepiandrosterone sulfate
DHT	Dihydrotestosterone
ELISA	Enzyme-linked immunosorbent assay
ERK	Extracellular signal regulated kinase
FFA	Free fatty acids
FMD	Flow-mediated dilation
G6PD	Glucose-6-phosphate dehydrogenase
GAGS	Global Acne Grading System
HDL-C	High-density lipoprotein cholesterol
HETE	Hydroxyeicosatetraenoic
HOMA-IR	Homeostasis Model Assessment of Insulin Resistance
HS	Hidradenitis suppurativa

ICAM	Intercellular cells adhesion molecule
IGF-1	Insulin like growth factor-1
IL	Interleukin
IMT	Intima-media thickness
IR	Insulin receptor
LDL-C	Low-density lipoprotein cholesterol
LOX	Lipoxygenase
LXR	Liver X receptor
MCAM	Melanoma cells adhesion molecule
MCP1	Monocyte chemoattractant protein 1
MS	Metabolic syndrome
NaAD	Nicotinate adenine dinucleotide
NaMN	Nicotinic acid mononucleotide
NAMPT	Nicotinamide phosphoribosyl transferase
NF- κβ	Nuclear factor kappa beta
Nmnat	NaMN adenylyltransferase
Nrk	Nicotinamide riboside kinases
OD	Optical density
PAI	Plasminogen activator inhibitor
PAMP	Pathogen-associated molecular patterns
PASI	Psoriasis Area and Severity Index
PBEF	Pre-B cell colony enhancing factor
PCOS	Polycystic Ovary Syndrome
PPARγ	Peroxisome proliferator-activated receptor gamma
PRRs	Pattern recognition receptors
Qprt	Quinolate phosphoribosyltransferase
RBP4	Retinol binding protein-4
ROS	Reactive oxygen species
SD	Standard deviation

SGs	Sebaceous glands
SHBG	Sex hormone binding globulin
SREBP1	Sterol regulatory element-binding protein 1
TC	Total cholesterol
TLR	Toll-like receptors
TMB	Tetramethylbenzidine
TNF	Tumour necrosis factor
VCAM	Vascular cells adhesion molecule
VSMCs	Vascular smooth muscle cells

List of Tables

Table	*Title*	*Page*
1	Global Acne Grading System	27
2	The personal characteristics of acne patients	60
3	Disease characteristics in acne group	61
4	Demographic data of control subjects	62
5	Comparison of cases and controls regarding the demographic data	63
6	Comparison of Visfatin, fasting glucose, insulin and HOMAIR between the two groups	65
7	Relation of Visfatin to BMI and HOMA-IR in the study groups	69
8	Comparison of moderate and severe cases of acne regarding visfatin and HOMA-IR	70
9	Correlation of LCN2 and HOMA-IR with the demographic data and disease characteristics in acne patients	72
10	Visfatin levels in relation to gender, family history and course	73
11	HOMA-IR values in relation to gender, family history and course	74

List of Figures

Fig.	*Title*	*Page*
1	Main actions of visfatin	42
2	ROC analysis of Visfatin levels	66
3	ROC analysis of fasting insulin levels	67
4	ROC analysis of fasting insulin	68

Introduction

1.Introduction

Sebaceous glands (SGs) together with the hair follicles form the pilosebaceous units with a primary role to produce sebum. Changes in their lipid metabolism resulting in an altered amount and composition of sebum as noted in skin diseases such as acne vulgaris and atopic dermatitis (AD) ***(Zouboulis et al.,2015). Kovács et al., 2016*** found that the SGs express adipokines like adiponectin, interleukin (IL) 6, resistin, leptin, serpinE1, apelin, chemerin and visfatin. This adipokines exhibit a pivotal role in the pathogenesis of inflammatory skin diseases as acne.

Visfatin, also known as Nicotinamide phosphoribosyl transferase (NAMPT) or pre-B cell colony enhancing factor (PBEF), has been identified as a new adipocytokine affecting insulin resistance by binding to the insulin receptor. Visfatin is also considered a new proinflammatory adipocytokine ***(Moschen et al.,2007).*** Visfatin is a biomarker related to insulin resistance and obesity ***(Friebe et al.,2011).*** Also, serum Visfatin level is found to be elevated in skin disease with considerable inflammation like Hidradenitis Suppurativa (HS) ***(González-Lopez et al.,2020 & Samir et al., 2020).***