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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





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HYPOLIPIDEMIC EFFECT OF SOME HERBS ON DIETARY INDUCED HYPERLIPIDEMIC RATS

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Thesis

Submitted for fulfilment of the Master Degree in Biochemistry

By Doaa Mosa Mostafa

Under supervision of

Dr. Fathy Mohamed Abd-EI-Gelil

Professor of Organic chemistry
Faculty of science
Cairo university

Dr. Ahmed E. Basyony

Professor of Biochemistry
Food Technology Research Institute
Agricultural Research center

Dr. Amr Saad Mohamed

Assistant professor of Biochemistry
Faculty of science
Cairo university

Faculty of Science Cairo university 2005

APPROVAL SHEET FOR SUBMISSION

Title of (M. SC.) Thesis: Hypolipidemic effect of some herbs on dietary induced hyperlipidemic rats.

Name of the candidate: Doaa Mosa Mostafa

This thesis has been approved for submission by the supervisors

1- Prof. Dr. Fathy Mohamed Abd –El-Gelil.

Fathi Abdel

Signature:

2- Prof. Dr. Ahmed E. Basyony β - E- Pasy

Signature:

3- Assist. Prof. Dr. Amr Saad Mohamed Amn Sace

Signature:

Prof. Dr. Rifaat H. Hilal

Chairman of Chemistry Department

Faculty of Science, Cairo University

ABSTRACT

Name: Doaa Mosa Mostafa

Title of thesis: Hypolipidemic effect of some herbs on dietary induced hyperlipidemic rats.

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This work has been carried out to investigate the chemical and biological effects of dill, parsley and celery either herbs or essential oils. Rats used in the biological study, were fed basal diet for two weeks. The rats were divided randomly for two main groups. The first is the control, and the second is hypercholesterolemic group which divided into to 13 subgroups according to the diet. The effect of these herbs and long term administrated essential oils on the body weight gain, ratio of organs (liver, kidney, spleen, heart) to body weight were recorded. Blood samples were collected by withdrawing in zero time and 30 days from vein plexus eye and the serum was obtained. Total lipids, triglycerides, total cholesterol, HDL, LDL, AST, ALT and thyroid hormones were determined. Liver, kidney, heart and spleen were carefully separated, weighted and subjected to histopathological examination. The obtained results revealed that feeding parsley, celery and dill herbs showed to be the best treatment for lowering lipid constituents compared with those of oral administration of essential oil of the seeds of the previously mentioned herbs.

Key words: parsley, celery, dill, herbs, essential oil.

Supervisor: ...tathu

Prof. Dr. Rifaat H. Hilal

Chairman of Chemistry Department

Faculty of Science, Cairo University

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CONTENTS

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WANT.

ESSERT

Item	Page
1- Introduction and aim of study	1
2- Review of literature	4
2-1 - Chemical composition	4
2-2- Physical and chemical properties of parsley, celery and dill essential oils	5
2-3- Essential oil components of parsley, celery and dill	6
2-4- Effect of herbs and their essential oils on serum lipid profiles	12.
2-5- Effect of herbs and their essential oils on liver function.	15
2-6- Histopathological effect of herbs and their essential oils.	15
2-7- Anti-microbial effect of essential oils	17
3- Materials and methods	19
3-1 - Materials	19
3-2-Methods	. 19
3-2-1- Chemical analysis of herbs	19
3-2-2- Determination of essential oils	19
3-2-3-Some physical and chemical properties of seeds essential oils	- 19
3-2-4-Fractionation and identification of essential oil components be chromatography /mass spectrometer	y gas 20
2.2.5 Diological evaluation	20

3-2-5-1 - Animal feeding experiments	20
3-2-5-2- Blood sampling	. 22
3-2-6- Biochemical parameters of blood	26
3-2-6-1- Determination of serum total lipids	26
3-2-6-2- Determination of triglycerides	26
3-2-6-3- Determination of serum cholesterol	27
3-2-6-4-Determination of high density lipoprotein-cholesterol(HDL-C).	28
3-2-6-5-Determination of low density lipoprotein-cholesterol (LDL-C)	29
3-2-6-6-Determination of very low density lipoprotein-cholesterol (VLDL-C)	30
3-2-6-7- Determination of serum transaminases	30
3-2-6-8-Determination of thyroid gland function(T ₃ and T ₄)	. 33
3-2-6-9- Determination of histological examination	33
3-2-6-10- Statistical analysis	33
4- Results and discussion	34
Summary and conclusion	85
References	90
Arabic summary	

LIST OF TABLES

No.	Table	Page
1	Composition of the experimental diet	23
2	Vitamin mixture composition of the diet	25
3	Salt mixture of the diet	25
4	Calculation for AST, ALT activities	32
5	Chemical composition of parsley, celery and dill herbs	34
6	Some physical and chemical properties of parsley, celery and dill	36
	essential oils	
7	Identification and determination of dill, parsley and celery essential	38
	oils by GC/MS chromatography	
8	Effect of feeding separately dill, parsley or celery either	42
	herbs or essential oils on body weight gain and food	
	efficiency ratio	
9	Effect of feeding separately dill, parsley or celery either	44
	herbs or essential oils on the ratio between some organs to body	
	weight	
10	Effect of feeding separately dill, parsley or celery either herbs	47
	or essential oils on the serum lipid fractions	
11	Effect of feeding separately dill, parsley or celery either herbs	56
	or essential oils on aspartate aminotransferase (AST) and alanine	
	aminotransferase(ALT)	
12	Effect of feeding separately dill, parsley or celery either herbs	60
	or essential oils on thyroid hormones	

L1ST OF FIGURES

120110E

No.	Figure	Page
1	A photomicrograph of liver of group (1)	70
2	A photomicrograph of liver of group (2)	70
3	A photomicrograph of liver of group (2)	71
4	A photomicrograph of liver of group (2)	71
5	A photomicrograph of liver of group (5)	72
6	A photomicrograph of liver of group (10)	72
7	A photomicrograph of liver of group (11)	73
8	A photomicrograph of liver of group (12)	73
9	A photomicrograph of liver of group (13)	74
10	A photomicrograph of kidney of group (2)	74
11	A photomicrograph of kidney of group (8)	75
12	A photomicrograph of kidney of group (9)	75
13	A photomicrograph of kidney of group (11)	70
14	A photomicrograph of kidney of group (13)	70
15	A photomicrograph of kidney of group (14)	7

16	A photomicrograph of spleen of group (1)	77
17	A photomicrograph of spleen of group (2)	78
18	A photomicrograph of spleen of group (10)	78
19	A photomic ograph of spleen of group (12)	79
20	A photomicrograph of spleen of group (13)	79
21	A photomicrograph of heart of group (2)	80
22	A photomicrograph of heart of group (4)	80
23	A photomicrograph of heart of group (8)	81
24	A photomicrograph of heart of group (9)	81
25	A photomicrograph of heart of group (9)	82
26	A photomicrograph of heart of group (10)	82
27	A photomicrograph of heart of group (12)	83
28	A photomicrograph of heart of group (13)	83
29	A photomicrograph of heart of group (13)	84
30	A photomicrograph of heart of group (14)	84

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ABBREVIATION

ALT Alanine amino transferase

AST Aspartate amino transferase

Buph 3-n-butylphthalide

BWG Body weight gain

°C Degree of centigrade

Faq aqueous fraction

Fbu butanol fraction

F.E.R. Food efficiency ratio

GC/MS Gas chromatography/ Mass spectrometer

GOT Glutamate oxalate transaminase

GPT Glutamate pyruvate transaminase

HDL High density lipoprotein

I:M Intimal media

i.p Intra peritoneal

LDL Low density lipoprotein

LSD Least significant differences

PA% Protective activity

RI Refractive index

RSD Relative standard deviation

SBP Systolic blood pressure

SHR Spontaneously hypertensive rats

T₃ Triiodothyroxine

T₄ Thyroxine

TC Total cholesterol

TG Triglyceride

TLC Thin layer chromatography

VLDL Very low density lipoprotein