بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

PATHOGENESIS OF ALOPECIA AREATA

THESIS

SUBMITTED IN PARTIAL FULFILLMENT FOR MASTER DEGREE IN DERMATOLOGY, VENEREOLOGY AND ANDROLOGY

By

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2000

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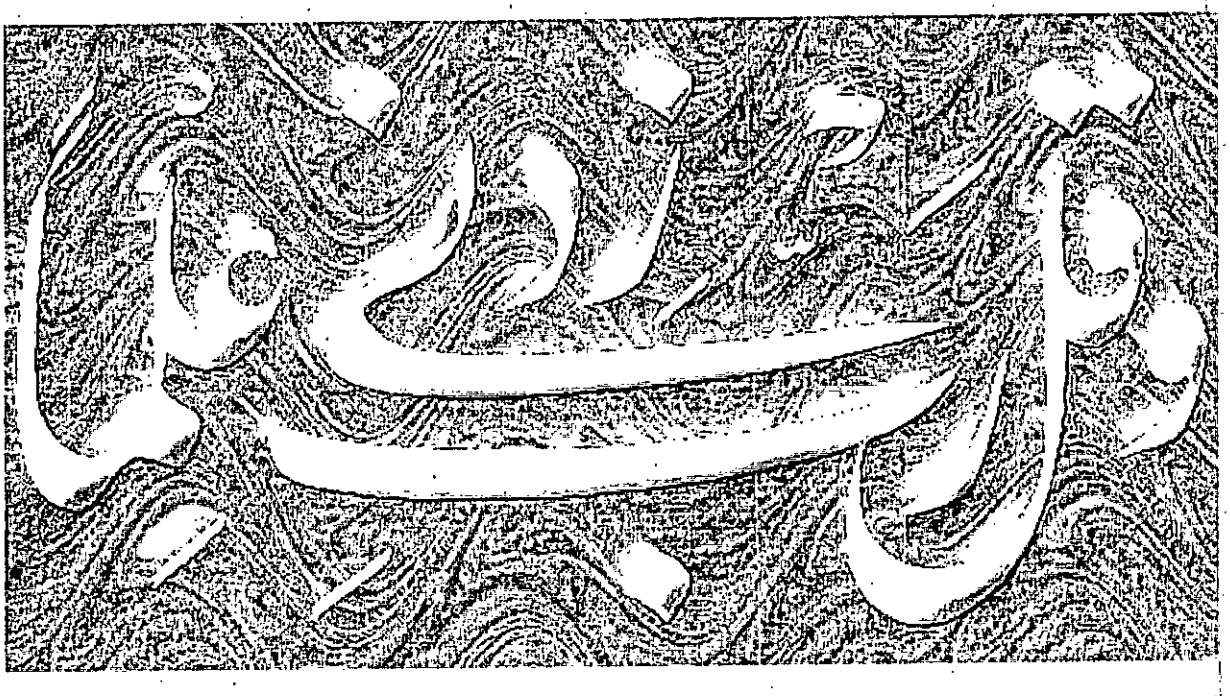

صدق الله العظيم

DEDICATION

To My Dear And Great Family , My Father, My Mother , Hanan, Ahmed, Amr.

Without Their Encouragement, Inspiration And Patience . This Work Would Never Been Brought To Fruition.

To All Who Taught Me A Letter From First Day Of School Up Till Now.

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Eman Kamal Youssef

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LIST OF ABBREVIATIONS

AA	:	Alopecia areata
AMA	:	Antimitochondrial antibody
ANA	:	Antinuclear antibodies
ASM	:	Antismooth muscle antibodies
AT	:	Alopecia totalis
ATP	:	Adenosine triphosphate
AU	:	Alopecia universalis
bFGF	:	basic fibroblast growth factor
BL	:	Basal lamina
CBCL	:	Child Behavior Checklist
CD16+ and CD56+	:	Natural killer cells
CD19+	:	B cells
CD1a+ and CD36+	:	Dendritic cells (thymocytes and Langerhans cells
CD3+	:	Matrure T lymphocytes
CD4+	:	T helper lymphocytes
CD8+	:	T suppressor lymphocytes
CDI	:	Childern's Depression Inventory
CGRP	:	Calcitonin gene-related peptide
CMAS	:	Childern Manifest Anxiety Scale
CMV	:	Cytomegalovirus
CRSD	:	Carroll Rating Scale for Depression
CTS	:	Connective tissue sheath
DC	:	Dark cells
DCP	:	Diphenylcyclopropenone
DP	:	Dormal papilla
DPCP	:	Diphencyprone
EGF	:	Epidermal growth factor
ELAM-1	:	Endothelial leukocyte adhesion molecule-1
EMH	:	Exclamation mark hairs
G-CSF	:	Granulocyte-colony stimulating factor
GM-CSF	:	Granulocyte macrophage-colony stimulating factor
HF	:	Hair follicle
HIV	:	Human immuno-deficiency virus
HLA	:	Human leukocyte antigen
HSR	:	High stress reactor
ICAM-1	:	Intercellular adhesion molecule-1
IFN-γ	:	Interferon gamma

IgA	:	Immunoglobulin A
IgG	:	Immunoflobulin G
IgM	:	Immunoflobulin M
IL-1	:	Interleukin-1
IL-1α	:	Interleukin-1 alpha
IL-1β	:	Interleukin-1 beta
IL-1ra	:	Interleukin-1 receptor antagonist
IL-2R	:	Interleukin-2 receptor
KD	:	Kilodalton
LAA	:	Localized alopecia areata
LFA-1	:	Lymphocyte surface integrin
LG	:	Langerhans granules
MAA	:	Multiple alopecia areata
MX	:	Epithelial hair matrix
NK	:	Natural killer
ORS	:	Outer root sheath
PCA	:	Antiparietal cell antibody
PCR	:	Polymerase chain reaction
PGE_2	:	Prostaglandin E_2
PUVA	:	Psoralen photochemotherapy
SADBE	:	Squaric acid dibutylester
SCID	:	Severe combined immunodeficiency
SDS-PAGE	:	Sodium dodecyl sulphate-8% polyacrylamide gel electrophoresis.
SP	:	Substance P
TGF-α	:	Transforming growth factor-alpha
TMA	:	Thyroid microsome antibody
TNF-α	:	Tumour necrosis factor-alpha
TNF-β	:	Tumour necrosis factor-beta
VB-repertoire	:	Variable region of T cell receptor chain

Introduction

INTRODUCTION

Hair has no vital function in humans, yet its psychological functions are extremely important, as any clinical dermatologist or cosmetician can readily attest from routine daily practice. If the inevitability of scalp baldness makes it reluctantly tolerable to genetically disposed men, in women, loss of hair from the scalp is even more distressing than the growth of body or facial hair in excess of the culturally acceptable norm (**Dawber et al., 1998).**

There are several types of alopecia, i.e.: androgenetic alopecia (**Olsen, 1994; Simpson, 1997**); congenital alopecia and hypotrichosis including total or partial absence of hair of developmental origin (**Sinclair and De Berker, 1997**); total alopecia (**Dawber, 1997**); diffuse alopecia of endocrine origin (**Comaish, 1985 and Holt and Marks, 1977**); alopecia of chemical origin (**Simpson, 1997**); alopecia of nutritional and metabolic origin (**Weismann, 1980; and Gummer, 1985**); chronic diffuse alopecia (**Fiedler and Hafeez, 1994**), alopecia in central nervous system disorders (**Mikula and Stiedl, 1961; and Tarnow, 1971**), and alopecia areata (**Gupta et al., 1990; Hordinsky, 1994; Skinner et al., 1995a; and Tosti et al., 1996b and Messenger and Simpson, 1997).**

Alopecia areata (AA) is a relatively common, reversible hair follicle disorder (**Bystryn and Tamesis, 1991 and Tobin et al., 1994a**), characterized by the sudden appearance of sharply defined round or oval patches of hair loss. Although the condition occurs at all ages, the first attack usually appears in patients under 25 years of age (**Schachner and Hansen, 1996).** It is characterized by the sudden and premature involution of early anagen hair follicle (HF) at the site of disease activity

(**Messenger et al., 1986**). Hair shafts may be defective or totally lacking in affected HF. The location, extent, and time course of AA lesions are unpredictable, with lesions ranging from small patches to total loss of scalp hair (alopecia totalis) and loss of all body hair (alopecia universalis) (**Tobin, 1997).**

It is not at present possible to attribute all or indeed any case of AA to a single cause. Among the many factors that appear to be implicated in at least a proportion of cases are the patient's genetic constitution, the atopic state, non-specific immune and organ-specific autoimmune reactions, and possibly emotional stress (**Messenger and Simpson, 1997**).