

BIOLOGICAL HORMONAL ACTIVITIES OF ADIANUM CAPILLUS VENERIS L. EXTRACT IN MENOPAUSAL WOMEN

A THESIS

Submitted For Partial Fulfillment Of M.SC. Degree in
Obstetrics & Gynecology

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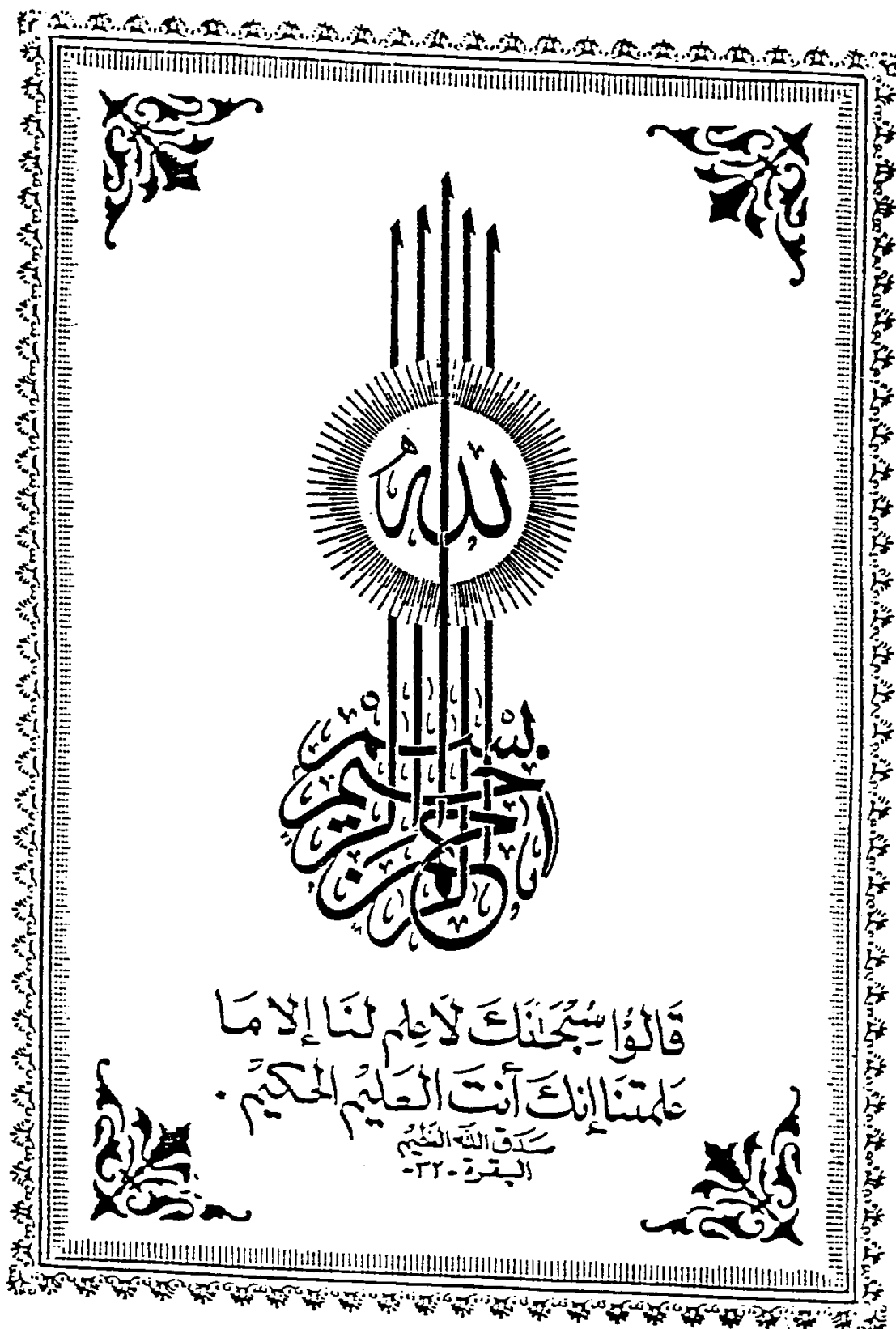
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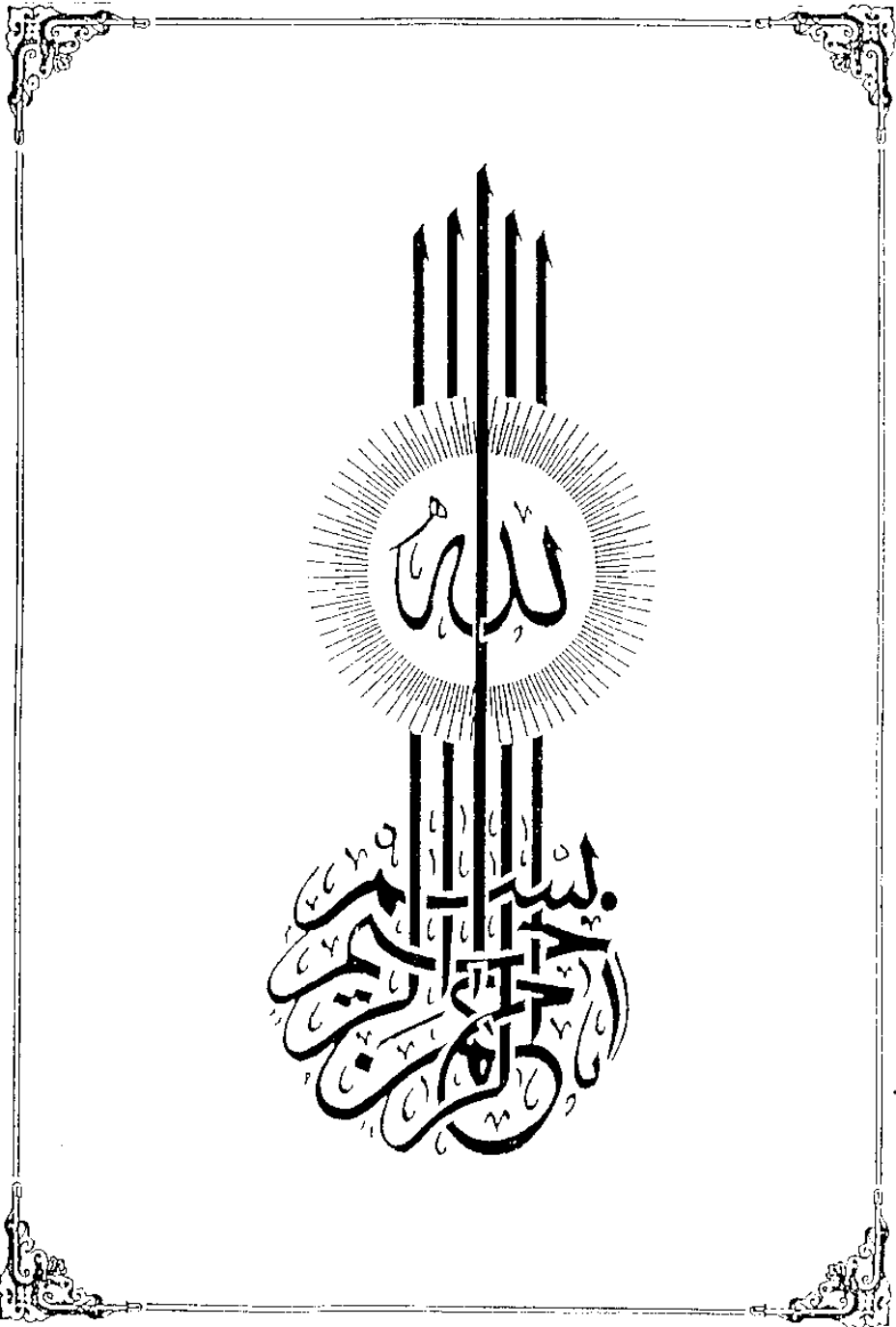
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***DEDICATED TO
MY FAMILY
THE WHOLE AND THE NUCLEUS***

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Wael Mahmoud

List of abbreviations

HRT : hormone replacement therapy.

ERT : estrogen replacement therapy.

FSH : follicle stimulating hormone.

LH : luteinizing hormone.

LDL : low density lipoproteins.

VLDL: very low density lipoproteins.

HDL : high density lipoproteins.

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INTRODUCTION

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In both the medical and lay literature there has been an interest in menopausal issues, and such topics as hormonal replacement therapy, and its benefits and risks have occupied the attention of the clinician and the investigator, as well as the women anticipating or having experienced the menopause (**Yen and Jaffe 1991**).

Estrogen production by the ovary does not abruptly stop at the time of menopause. Instead, ovarian estrogen "Estradiol is gradually decreased during a period of several years, ending by almost complete cessation of ovarian production of estrogen. Thus postmenopausal women are deficient principally in estradiol. And equally important the decreased or absent secretion of progesterone. (**Mckinlay et al.,1992**).

Herbal medicine or phytotherapy, is the science of using herbal remedies to treat the sick. It therefore covers everything from medicinal plants with powerful actions, to those with very gentle actions. Most of medicinal plants do not have any appreciable toxic effects, and may therefore be safely taken over an extended period of time (**Weiss, 1989**).

The Adiantum capillus veneris L (Maiden Hair) is a terrestrial fern, widely distributed all over the world, and is of high medicinal value. In folk medicine it has been longely used as an antipyretic, antiemetic, anti-helminthic expectorant, emmenagogue and contraceptive. The previous works showed that the N. hexane extract of the fronds of the plant injected in experimental animals, possesses estrogen and progesterone like effects with no androgen like effects. Toxicity of the N.hexane extract was found to be minimal (El-Tantawy, 1989).

AIM OF THE WORK

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To evaluate, biologically, the estrogenic and progestational activities of Adiantum capillus veneris L. Extract in the form of vaginal ovules on menopausal women.

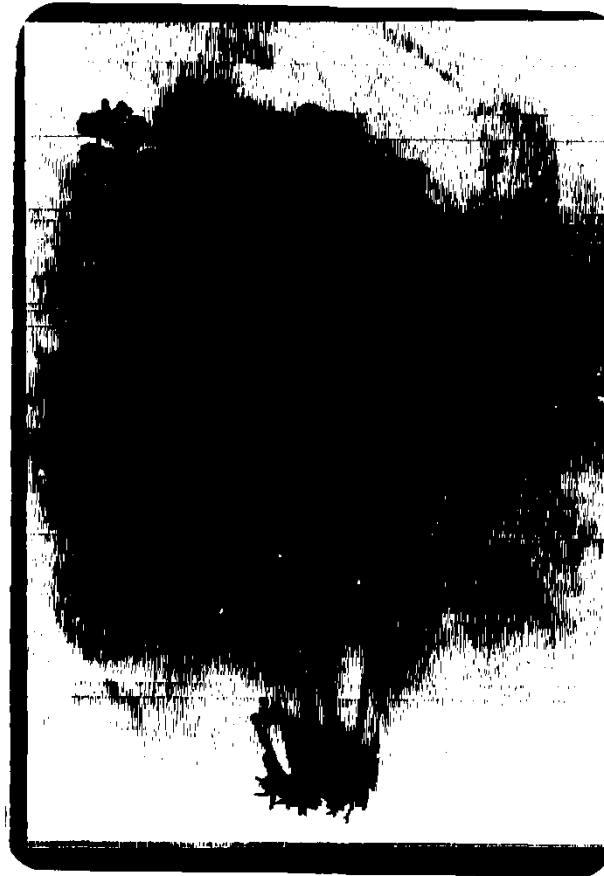


Fig. 1: The Adiantum capillus veneris L.

***REVIEW OF THE
LITERATURE***

CHAPTER I

MENOPAUSE

Menopause describes the permanent cessation of menses which usually occurs in women at a mean age of 50 years (**Whitehead, 1992**).

The condition constitutes one part of the climacteric during which the woman undergoes various endocrine, psychological and somatic changes.

The changes are related to both estrogen depletion and to aging, but it is impossible to quantify the respective effect of each (**Dove et al., 1971**).

Definitions:

Menopause is derived from the Greek men "month" and pauo "to stop" means the cessation of menstruation.

Climacteric is derived from Greek Klimakter "rung of the ladder" means the critical period of the life and also it is equivalent to the Perimenopause which may extend 5-10 years. Pre, Peri and post menopause apply respectively to the periods immediately before, around and after the cessation of Menstruation (**Utian, 1989**).