Ain Shams University
Faculty of Medicine
Department of Obs.&Gyn.

A THESIS ON

THE PREVALENCE OF SPASMODIC DYSMENORRHEA IN YOUNG EGYPTIAN FEMALES: EPIDEMIOLOGIC STUDY

Presented by
Soheir Fahmy Tewfik

As a partial fulfilment for the
M. S. Degree
in Obstetrics & Gynaecology

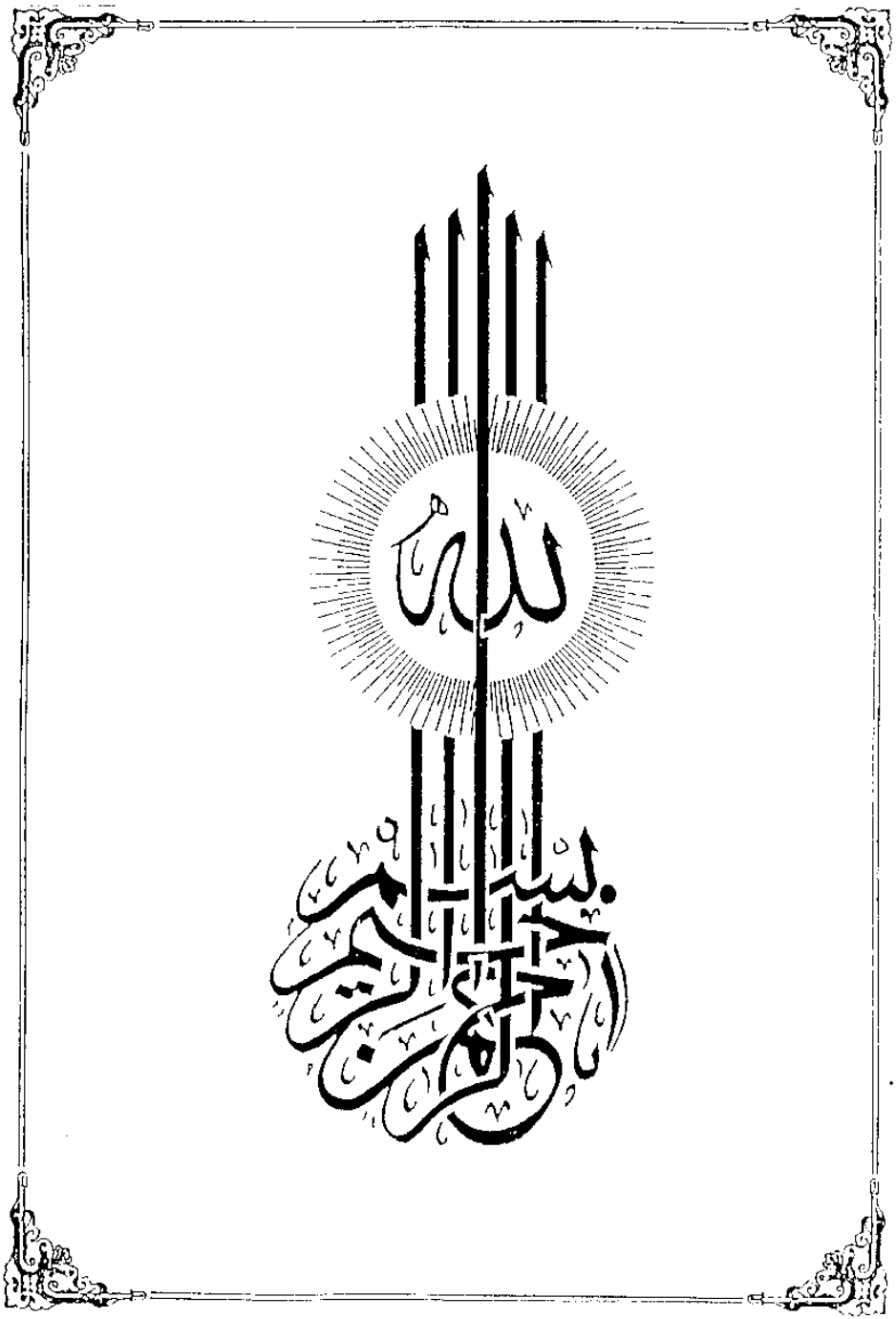
Under the supervision of

Doctor Mahmoud El-Shourbagy
Assistant Professor in Obs. & Gyn.
Ain-Shams University.

Doctor Hussein A. H. Khalil
Lecturer in Obs. & Gyn.
Ain-Shams University.

CAIRO
1986

Contents



ACKNOWLEDGEMENT

A C K N O W L E G E M E N T

I wish to express my thanks and respect to late Dr. Hussein A.N. Khalil, Lecturer in Obs. and Gyn., Ain Shams University, for his interest and encouragement. The death of Dr. Hussein is a great loss. He will always be missed and remembered by all who know him.

I would like to express my profound gratitude and sincere appreciation to Dr. Mahmoud El-Shourbagy, Assistant Professor of Obs and Gyn, Faculty of Medicine, Ain Shams University, for suggesting the topic of this work, continuous guidance, constant support, criticism and sound advice generously given throughout the course of the present study and during the writing of this Thesis.

I would like also to acknowledge with thanks, the valuable help, co-operation and encouragement of Dr. Mohsen Gad-Alla, Lecturer of Public Health Department.

Thanks are also due to all those who shared and assisted in this work and for their kind help.

INTRODUCTION

INTRODUCTION

Primary spasmodic dysmenorrhea is a common problem that faces many gynaecologists. Individual variation is the rule concerning the pain perception and its intensity as well as its distribution. Many sociologic factors have their repercussion on dysmenorrhea, e.g., standard of education, smoking, contraception, nutrition ..... etc.

The incidence of dysmenorrhea becomes higher with the higher degree of civilisation of the community (Schwartz et al. 1974).

The bulk of the problem is not well estimated in the developing countries.

AIM OF THE STUDY

Aim of the Study

The current study reports on the prevalence rate of primary dysmenorrhea among the Egyptian student girls and evaluate the different sociocultural and biological variables which might have a role in its prevalence.

INNERVATION OF THE UTERUS

Innervation of the uterus

The innervation of the uterus has been reviewed by Jeffecoate (1978). He stated that all the internal organs of reproduction have only an autonomic innervation. Autonomic nerves carry both sensory and motor fibres both adrenergic and cholinergic. The sympathetic nerves arise from segments $D_{5,6}$ in case of motor nerves and from D_{10} to L_1 in case of sensory nerves. These sympathetic nerves pass down to the coeliac plexus and then to the aortic plexus which lies in front of the abdominal aorta. Fibres from this aortic plexus pass downwards cross the bifurcation of the aorta and form the presacral nerve in front of promontory of sacrum. The presacral nerve divides into two main branches known as the hypogastric nerves. These nerves terminate in the hypogastric ganglia or what is called the inferior hypogastric plexus. This plexus lies on either side of the ampulla of the rectum and extends forwards beneath the uterosacral and broad ligament. This forward extension is called the Lee-Frankenhauser plexus and lies posterolateral to the cervix. From this plexus nerve fibres pass forwardsin the uterosacral and

cardinal ligament reach the level of the cervix and supply the uterus, vagina, ureter and bladder.

Jeffecoate (1978) added that the fundus of the uterus receives abdominal nerve supply from the ovarian plexus which is derived from the coeliac and renal ganglia and follows the course of the ovarian vessels to the ovary, fallopian tube and fundus of the uterus.

As regards the parasympathetic supply of the uterus this is derived from $S_{2,3,4}$ nerve roots as sensory and motor fibres which pass down and join the sympathetic nerves in the Lee-Frankenhauser plexus. They carry sensation from the cervix and lower uterine segment.

Ganong (1983) mentioned that the uterus contains both alpha and $beta_2$ adrenergic receptors. The alpha receptors contain two subtypes α_1 and α_2. Alpha receptors cause contraction of the uterus while Beta cause relaxation.

Ganong added that the myometrium unlike other organs of the body is innervated by a special system of short adrenergic neurons with cell bodies in the uterus and the preganglionic fibres go all the way to the uterus.

DYSMENORRHEA

Definition

Dysmenorrhea

Definition:

Dysmenorrhea is one of the most common gynaecologic complaint in the adolescent girl. It affects about 50% of all adolescent females and represents the leading cause of school absenteesm (Alvin and Litt, 1982).

It was defined by Abraham (1978) as symptoms occurring one day prior to or at the onset of menstruation characterised by pelvic pain with complete or marked improvement at the end of menses.

Dysmenorrhea includes all degrees of pain from that causing slight inconvenience to severe pain confining the girl to bed and in some cases requiring the use of opiate (Chan et al., 1981).

However, Budoff (1982) defined it as painful menstruation which forces the patient to relinquish for days or hours her mode of life and to seek medical advice for the relief of the condition.

In 1984, Dawood defined dysmenorrhea as painful menstrual cramp.

CLASSIFICATION OF DYSMENORRHEA