

# بسم الله الرحمن الرحيم









شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

# قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة يعيدا عن الغيار











بالرسالة صفحات لم ترد بالأصل



# THE EFFECT OF MISOPROSTOL ON MENSTRUAL BLOOD LOSS OF DYSFUNCTIONAL MENORRHAGIA

BICUNA

A Thesis

Submitted For Partial Fulfillment of Master Degree In Obstetrics and gynaecology

By
MOHAMMED MOHAMMED KAMAL

M.B.B. Ch. Faculty of Medicine Benha University

Supervised By

PROF. DR. MOHAMMED KAMEL ALLOSH

Prof. of Obstetrics and gynaecology Faculty of Medicine Benha University

#### DR. NOUR EL DIN IBRAHIM ASHMAWY

Assistant Prof. of Obstetrics and gynaecology Faculty of Medicine Benha University

#### DR. SEHAM ABDELHALIM ELBERRY

Lecturer of Obstetrics and gynaecology Faculty of Medicine Benha University

FACULTY OF MEDICINE BENHA UNIVERSITY

2006

# THE THE POLICE

صدق الله العظيم "البقرة- آية ٣٢"

# CONTENTS

List of contents	Page
AKNOWLDGEMENT	
INTRODUCTION	1
AIM OF THE WORK	3
REVIEW OF LITERATURE	
Chapter (1): Physiology of menstruation	4
Chapter (2): Definition and Incidence of menorrhagia	15
Chapter (3): Pathophysiology of menorrhagia	18
Chapter (4): Diagnosis of dysfunctional menorrhagia	24
Chapter (5): Misoprostol	52
Chapter (6): Treatment of menorrhagia	60
SUBJECT AND METHODS	78
RESULTS	83
DISCUSSION	95
SUMMARY AND CONCLUSION	105
REFRENCES	107
ARABIC SUMMARY	
Harmon and the second	

## **ACKNOWLEDGEMENTS**

First and foremost thank to *ALLAH*, to whom I relate my success in achieving my work and any good thing in my life.

I am grateful to *PROF. DR. MOHAMAD KAMEL ALOSH*, Professor of Obstetrics and Gynecology, Benha Faculty of Medicine, for his great help, kind supervision and helpful advice.

I would like to express my thanks, my gratitude to *DR*. *NOUR EL DIN IBRAHIM ASHMAWY*, Assistant Professor of Obstetrics and Gynecology, Benha Faculty of Medicine, for his kind guidance and scientific direction.

I am thankful to *DR. SEHAM ABD-EL-HALIM EL-BERRY*, Lecturer of Obstetrics and Gynecology, Benha Faculty of Medicine for her careful guidance meticulous help and indispensable direction.

# ABBREVIATIONS

AA : Arachiodonic acid.

BHCG: Beta subunit of human chronic gonadotraphins.

COCs : Combined oral contraceptives.

COX : Cyclooxygenase inhibitors.

**D &C** : Dilatation & curettage.

DUB : Dysfunctional Uterine Bleeding.

EA : Endometrial ablation.

EACA : ε amino – caproic acid.

ERI. : Esitimated blood loss.

EBL : Esitimated blood loss.

FDA : Food and drug administration.

FDA : Food and drug administration:
FSH : Follicle stimulating Hormone.

GnRH : Gonadotrophin releasing Hormone.

HEA : Hysteroscopically endometrial ablation.

IUD : Intrauterine Device.

LH : Lutenizing Hormone.

MAO : Monoamino oxidaze.

MBL : Menstrual blood loss.

MPA : Medroxy progesterone acetate.

MRI : Magnetic resonance Imaging.

Nd:YAG
NHEA
: Neodymium: yttrium aluminum garnet.
: Non hysteroscopic endometrial ablation.
: Non steroidal anti – inflammatory drugs.

PA : Plasminogen activator.

PAI : Plasminogen activator inhibitors.

PAP : Papanicolaou.

PBLAC : Pictorial blood loss assessment chart.

PG: Prostaglandins.
PGI: Prostacycline.

RCTs: Randomized controlled trials.

**RF** : Radiofrequency.

SLE : Systemic lupus erythematosis.

STH : Supracervical or subtotal hysterectomy.

T3 : Tri Iodo thyronine.

T4 : Tetra Iodo thyronine

TSH : Thyroid stimulating hormone.

TXA2 : Thromboxan A2.

### LIST OF TABLES

Review	Table	Item	Page
	No.		
	I	Differential diagnosis of abnormal uterine bleeding.	26
	П	Onset of menorrhagia related to diagnosis	34
	Ш	Associated symptoms of related causes of D. U.B.	35
	IV	Options for evaluation of the endometrium	51
Results	1	Comparison of baseline variables between women	83
		who received Misoprostol or placebo (mean ± SD).	
	2	Comparison means ± SD of the haemoglobin before	84
		and after bleeding among the misoprostol study	
		group.	
	3	Comparison means ± SD of Haematocrit before and	85
		after bleeding according to different cycles among	
		the Misoprostol study group.	
	4	Comparison means ± SD of the number of cycle	86
		days according to different cycles among the	
		Misoprostol study group.	
	5	Comparison means ± SD of the estimated blood	86
		loss according to different cycles among the	
		Misoprostol study group.	
	6	Comparison means ± SD of the pictorial blood loss	87
		assessment chart (PBLAC) according to different	
		cycles among the Misoprostol study group.	
	7	Comparison means ± SD of the haemoglobin before	88
		and after bleeding among the placebo study group.	
	8 .	Comparison means ± SD of Haematocrit before and	89
		after bleeding according to different cycles among	
		the placebo study group.	
	9	Comparison means ± SD of the number of cycle	89
		days according to different cycles among the	

		placebo study group.	
	10	Comparison means ± SD of the estimated blood	90
		loss according to different cycles among the	
		placebo study group.	
	11	Comparison means ± SD of the Pictorial blood loss	91
		assessment chart (PBLAC) according to different	
		cycles among the placebo study group.	
	12	Comparison of Haemoglobin, Haematocrite,	92
:		Estimated blood loss, number of cycle days	
		estimation of blood loss by pictorial blood loss	,
		assessment chart before and after treatment (1st	
		basal group versus 2 <sup>nd</sup> basal group) (mean ± SD)	
	13	Comparison of haemoglobin, haematocrite,	93
		estimated blood loss, number of cycle days	
		estimation of blood loss by pictorial blood loss	
		assessment chart before and after treatment (drug	
		versus placebo study group) of the 1st treatment	
		cycle (mean $\pm$ SD).	
	14	Comparison of Haemoglobin, Haematocrite,	94
		estimated blood loss, number of cycle days	
		estimation of blood loss by pictorial blood	
		loss assessment chart before and after	
		treatment (drug versus placebo study group)	
		of the 2 <sup>nd</sup> treatment cycle (mean ± SD)	

#### LIST OF FIGURES

Figures	Item	
No.		
I	Uterus, adenexae and vagina showing flow of menstruation.	5
П	The menstrual cycle, showing pituitary and ovarian hormones and histologic changes.	14
Ш	Show the chemical structure of misoprostol	53

#### **ABSTRACT**

Objective: To evaluate the efficacy of misoprostol in treatment of dysfunctional menorrhagia.

Design: Prospective case control randomized study.

Y

Setting: Benha University hospital clinic & EL-Amrea central hospital clinic- Alexandria.

subject: Forty women diagnosed as having dyfunctional menorrhagia (ascertained by blood hemoglobin, hematocrite, number of menstruation days, estimated blood loss(EBL) and pictorial blood loss assessment chart(PBLAC). Women were divided into two groups each containing 20 women. One pretreatment cycle was compared with two treatment cycles. One group was given oral misoprostol and the other group was given placebo for two consequent cycles each for two treatment cycles. Misoprostol and placebo treatment two cycles were compared. Comparing the 1<sup>st</sup> and 2<sup>nd</sup> cycles of misoprostol with the 1<sup>st</sup> and 2<sup>nd</sup> placebo cycles respectively.

Results: group I (misoprostol group): the mean differences(post-trial minus pretrial) in hemoglobin and hematocrite were statistically significant. Also significant reduction between baseline and treatment cycles was present. The mean differences of number of menstruation days between the baseline and 1<sup>st</sup> and 2<sup>nd</sup> treatment cycles were significant. The mean differences of EBL between the baseline and 1<sup>st</sup> and 2<sup>nd</sup> treatment cycles were significant. Also the mean difference of EBL between the 1<sup>st</sup> and 2<sup>nd</sup> treatment cycles was significant. The mean difference of PBLAC between the baseline and 1<sup>st</sup> and 2<sup>nd</sup> treatment cycles were significant. Also the mean