

**Serum Anti mullerian Hormone as A Marker
of Ovarian Reserve in Patients with
Polycystic Ovarian Syndrome Before and
After Laparoscopic Ovarian Drilling**

Thesis

**Submitted in Partial Fulfillment of Master Degree in
(*Obstetrics & Gynecology*)**

By:

Noha Abd Elbaset Soliman Mohamed

M.B.B.Ch. (٢٠٠٣)

Faculty of Medicine, Suez Canal University

Resident of Obstetrics. & Gynecology

Benha Teaching Hospital

Under Supervision

Prof. Dr./ Ayman Abdel Razik Abou Elnour

Professor of Obstetrics & Gynecology

Faculty of Medicine, Ain Shams University

Dr./ Rany Mohamed Harara

Lecturer of Obstetrics & Gynecology

Faculty of Medicine, Ain Shams University

Faculty of Medicine

Ain Shams University

٢٠١٠

Acknowledgements

My sincere thanks to **Prof. Dr./ Ayman Abdel Razik Abou Elnour**, Professor of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for his generous and kind help. His objective criticism and encouragement had greatly influenced this work.

I would like to thank **Dr./ Rany Mohamed Harara**, Lecturer of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for his generous support, help enthusiasm and constructive guidance.

Many thanks should be extended to **all members** in Radiology and Laboratory Departments for their great help and my colleagues in Obstetrics and Gynecology Departments in Ain Shams University Hospital.

CONTENTS

Title	Page No.
* List of Abbreviations	I
* List of Figures	III
* List of Tables	V
* Introduction	١
* Aim of the Work	٤
* Review of Literature	٥-٨٦
• Epidemiology and Pathogenesis of the Polycystic Ovary Syndrome.	٥
– Definition.	٥
– Epidemiology	٥
– Pathogenesis	٧
• Clinical Manifestation of Polycystic ovary Syndrome.	١٤
• Diagnosis of polycystic ovary syndrome.	٣٠
– Differential diagnosis.	٣٦
• Assessment of Ovarian Reserve.	٣٩
• Antimüllerian hormone, A new marker for ovarian function.	٥٦
• Laparoscopic Ovarian Drilling.	٧٤
• Effect of Laparoscopic Ovarian Drilling on Ovarian Reserve.	٨١
* Patients and Methods.	٨٧
* Results	٩١
* Discussion	١٠٢
* Summary, Conclusion and Recommendations	١٠٩
* References	١١٢
* Arabic Summary	

To....

My Father

My Mother

My Mother In Law

My Husband

My Daughter

Noha Abd Elbaset Soliman

٢٠١٠

Acknowledgements

My sincere thanks to **Prof. Dr./ Ayman Abdel Razik Abou Elnour**, Professor of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for his generous and kind help. His objective criticism and encouragement had greatly influenced this work.

I would like to thank **Dr./ Rany Mohamed Harara**, Lecturer of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for his generous support, help enthusiasm and constructive guidance.

Many thanks should be extended to **all members** in Radiology and Laboratory Departments for their great help and my colleagues in Obstetrics and Gynecology Departments in Ain Shams University Hospital.

Introduction

Aim of the Work

Review of Literature

Patients and Methods

Results

Discussion

Summary, conclusion and Recommendations

References

Arabic Summary

LIST OF ABBREVIATIONS

ACTH	: Adrenocorticotrophic hormone.
AFC	: Antral follicle count.
AMH	: Antimullerian hormone.
ART	: Assisted Reproductive Technology.
ASRM	: American Society of Reproductive Medicine.
BMI	: Body Mass Index.
CAH	: Congenital Adrenal Hyperplasia.
CC	: Clomiphen Citrate.
CHD	: Coronary Heart Disease.
DHEA-S	: Dehydroepiandrosterone sulfate.
ESHRE	: European Society for Human Reproduction & Embryology.
FSH	: Follicle Stimulating Hormone.
GnRH	: Gonadotrophines releasing Hormone.
hCG	: Human Chorionic gonadotrophines.
HDL	: High Density Lipoproteins.
HOMA-IR	: Homeostasis model assessment of insulin resistance.
IGF-λ	: Insuline-like Growth Factor- λ .
IR	: Insulin resistance.
IVF	: In Vitro Fertilization.
IVM	: In vitro Maturation.
LDL	: Low Density Lipoproteins.
LH	: Leutenizing Hormone.
LOD	: Laparoscopic Ovarian Drilling.
MIS	: Mullerian Inhibiting Substance.
NIH	: National Institute of Health.
OR	: Ovarian Reserve.