



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

EFFECT OF EXERCISE-INDUCED ISCHEMIA ON QT INTERVAL DISPERSION.

Thesis
Submitted for Partial Fulfillment of Master Degree
in Cardiology

Presented By:
Dr. Mohamed Ebrahiem El-Razaz
M.B.B.Ch.

Supervisors
Prof. Dr. HESHAM MOHAMED ABU EL-ENIEN
Assistant Professor in Cardiology
Benha Faculty of Medicine
Zagazig University

**Dr. EL-SAYED ABD
EL-KHALK MAHMOUD**
Lecturer of Cardiology
Benha Faculty of Medicine
Zagazig University

**Dr. MOHAMED AHMED
HAMODA**
Lecturer of Cardiology
Benha Faculty of Medicine
Zagazig University

Benha Faculty of Medicine
Zagazig University

2000



بسم الله الرحمن الرحيم

"سبحانك لا علم لنا الا ما علمتنا"

صدق الله العظيم

Dedication

To Soul My Mother

To My Father

To My Wife

To My Son Ahmad

Dr. Mohamed El-Razaz

ACKNOWLEDGEMENT

Thanks First and Last to God as we owe to him for his great care, support and guidance in every step in our life.

I am deeply indebted to Prof. Dr. HESHAM M. ABU EL-ENIEN, Assistant Professor in Cardiology, Benha Faculty of Medicine, for his valuable supervision and faithful support. I can not express may deep thanks and gratitude for his advice and genuine help.

I would like to express may deepest thanks to Dr. EL-SAYED ABD EL-KHALEK, Lecturer in Cardiology, Benha Faculty of Medicine, for his supervision upon this work, guidance and endless cooperation throughout the course of this work.

I do not find words to thank Dr. MOHAMED A. HAMODA, Lecturer in Cardiology, Benha Faculty of Medicine, to whom I feel most indebted for his essential guidance, help up on practical part of this work, endless support and continuous encouragement.

Finally, I would like to thank my parents and my wife for their personal support and encouragement.

Dr. Mohamed E. El-Razaz

CONTENTS

		Page No.
CHAPTER I	INTRODUCTION	1
CHAPTER II	AIM OF THE WORK	2
CHAPTER III	REVIEW OF LITERATURES	
	QT Interval	3
	Exercise Electrocardiographic	34
	Arrhythmia in IHD	59
CHAPTER IV	PATIENTS AND METHODS	74
CHAPTER V	ANALYSIS OF RESULTS	82
CHAPTER VI	DISCUSSION	100
CHAPTER VII	LIMITATIONS	107
CHAPTER VIII	CONCLUSION	108
CHAPTER VII	SUMMARY	109
CHAPTER VIII	REFERENCES	110
CHAPTER IX	APPENDIX	
CHAPTER X	SUMMARY IN ARABIC	

LIST OF ABBREVIATIONS

QTD	QT dispersion
QT _c	Corrected QT
QT _c D	Corrected QT dispersion
QT _c D%	Corrected QT dispersion percent
IHD	Ischemic heart disease
IHD-B	Ischemic heart disease taking beta blockers
CAD	Coronary artery disease
TH	Techniques threshold
DTH	Differential threshold
PSI	Technique slope intercept
CPC	Chest pain center
SD	Standard deviation

INTRODUCTION AND AIM OF THE WORK

INTRODUCTION

There is considerable evidence to suggest that QT interval is closely related to ventricular action potential and is a good non invasive measure of the repolarization segment (*Fronz et al., 1988; Zobel et al., 1995*).

Several reports have indicated that regional difference in static QT interval measurement from a surface 12 lead electrocardiogram (QT dispersion) may provide an indirect measure of underlying inhomogeneity of myocardial repolarization (*Perkiomaki et al., 1995; Pye et al., 1994*).

Furthermore an increase in dispersion of the QT interval has been reported to predict the occurrence of ventricular tachycardia in ischemic heart disease (IHD) and serves to identify patients at risk for life-threatening arrhythmia after a previous myocardial infarction (*Perkiomaki et al., 1995*).

Arrhythmia and sudden cardiac death in subject with IHD are dynamic events linked to physical activity (*Cobb and Weaver, 1986*).

It is thereby conceivable that exercise induced abnormalities in QT dispersion may facilitate the development of ventricular arrhythmia (*Konnel, 1992*).

AIM OF THE WORK

To examine the effect of exercise induced ischemia on QT dispersion in subjects with IHD and to study the effect of β -blockers on dynamic changes involving QT interval dispersion.

REVIEW OF LITERATURE