

**Predischarge Ischemic Episodes In
Asymptomatic Patients Following Acute
Myocardial Infarction**

And Evaluation of Circadian Rhythm

Thesis



**Submitted For Partial Fulfillment of Master Degree In
Cardiology**

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CONTENTS

	Page
Introduction	1
Aim Of The Work	2
Review Of Literature:	3-62
Chapter I:	
Ischemia After Myocardial Infarction	3
Chapter II:	
Detection Of Post Myocardial Infarction Ischemia	23
Chapter III:	
Drug Effect On Post Myocardial Infarction Ischemia .	38
Chapter IV:	
ST Segment	48
Chapter V:	
Value Of Holter Electrocardiogram In Evaluation Of	
Ischemic Episodes	56
Material And Methods	63
Results	70
Discussion	110
Conclusion	121
Recommendations	122
Summary	123
References	125
Arabic Summary.	



LIST OF TABLES

Table No.	Title	Page
	ST shift paramaters:	
1	ST shift (frequency)	75
2	ST shift (Depression and elevation)	75
3	ST shift (Single and both depression & elevation)	75
4	ST shift (silent, symptomatic and mixed)	75
5	Relation of age to ST shift	76
6	Relation of diabetes to ST shift	76
7	ST shift and history of pre-infarction angina	76
8	Relation of CK level to ST shift	77
9	ST shift and post infarction angina	77
10	ST shift and streptokinase therapy	77
11	ST shift and site of infarction	78
12	ST shift and in hospital cardiac events	78
13	ST shift and left ventricular ejection fraction	78
14	ST shift and extent of CAD on coronary angiography	79
15	Ejection fraction and total ischemic duration	79
16	Total ischemic duration and extent of CAD.	79

Cont. LIST OF TABLES

Table No.	Title	Page
	ST Depression paramaters:	
1	ST depression and the age of the patients ...	82
2	ST depression and DM	82
3	ST depression and angina prior to MI	82
4	ST depression and total CPK level	83
5	ST depression and streptokinase therapy	83
6	ST depression and site of infarction	83
7	ST depression and post infarction angina	84
8	ST depression and post infarction cardiac events	84
9	ST depression and left ventricular ejection fraction	84
10	ST depression and number of diseased coronary vessels	85
11	Silent ST depression and number of diseased vessels on coronary angiography.	85
12	Symptomatic ST depression and number of diseased vessels on coronary angiography.	86
13	Mixed ST depression and number of diseased vessels on coronary angiography.	86
14	Silent ST depression and left ventricular ejection fraction	87
15	Symptomatic ST depression and left ventricular ejection fraction	87
16	Mixed ST depression and left ventricular ejection fraction	87

Cont. LIST OF TABLES

Table No.	Title	Page
	ST Elevation paramaters:	
1	ST elevation and the age of the patients	90
2	ST elevation and DM	90
3	ST elevation and angina prior to MI	90
4	ST elevation and total CPK level	91
5	ST elevation and streptokinase therapy	91
6	ST elevation and site of infarction	91
7	ST elevation and post infarction angina	92
8	ST elevation and post infarction cardiac events	92
9	ST elevation and left ventricular ejection fraction	92
10	ST elevation and number of diseased coronary vessels on angiography	93
11	Symptomatic ST elevation and number of diseased coronary vessels	93
12	Silent ST elevation and number of diseased vessels on cononary angiography	94
13	Mixed ST elevation and number of diseased vessels on coronary angiography	94
14	Silent ST elevation and left ventricular ejection fraction	95
15	Symptomatic ST elevation and left ventricular ejection fraction	95
16	Mixed ST elevation and left ventricular ejection fraction	95

Cont. LIST OF TABLES

Table No.	Title	Page
1a	Circadian Rythm: Comparison of the two (6 hours) intervals from 6-12 AM, and from 6-12 PM	99
1b	Comparison of the two (6 hours) intervals from 6-12 AM, and from 6-12 PM	100

LIST OF FIGURES

Fig. No.	Title	Page
1	Circadian Rythm: Distribution of the total number of ischemic episodes all over the four (6 hours) intervals of the day	98

LIST OF FIGURES IN CASE PRESENTATION

Fig. No.	Title	Page
	Case No. (5):	
1	Coronary angiogram: Left anterior oblique view of the left coronary artery	103
2	Coronary angiogram: Left anterior oblique view of the right coronary artery	103
	Case No. (9):	
1	Coronary angiogram: Left anterior oblique view of the left coronary artery	
2	Coronary angiogram: Left anterior oblique view of the right coronary artery	106
	Case No. (19):	
1	Coronary angiogram: Left anterior oblique view of the left coronary artery	109
2	Coronary angiogram: Left anterior oblique view of the right coronary artery	109

LIST OF ECG STRIPS ON HOLTER MONITORING

Strip No.	Title	Page
	Case No. (5):	
1	Baseline	102
2	ST depression	102
	Case No. (9):	
1	Baseline	105
2	ST elevation	105
	Case No. (19):	
1	Baseline	108
2	ST depression	108

LIST OF ABBREVIATION

ACE	: Angiotensin converting enzyme.
AECG	: Ambulatory electrocardiogram.
AMI	: Acute myocardial infarction.
CABG	: Coronary artery bybass graft.
CAD	: Coronary artery disease.
CK or CPK	: Creatine kinase or Creatine phosphokinase.
CT	: Computed tomography.
DM	: Diabetes mellitus.
ECG	: Electrocardiogram.
LAD	: Left anterior descending.
LV	: Left ventricle.
MI	: Myocardial infarction.
MRI	: Magnetic resonance imaging.
PTCA	: Percutaneous transluminal coronary angioplasty.
SMI	: Silent myocardial ischemia.
TIE	: Transient ischemic episodes.

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INTRODUCTION

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An imbalance between the supply of oxygen and other essential myocardial nutrients on one hand, and the myocardial demand of these substances on the other hand results in myocardial ischemia (*Perveen and Michael, 1994*).

Despite impressive strides in the diagnosis and management over the last three decades, acute MI continues to be a major public health problem in the industrialized world (*American Heart Association, 1996*).

Transient myocardial ischemia, frequently silent is not uncommon in the acute phase of MI and progressively decreases during the hospital stay. Its recognition in the subacute phase of MI may lead to the identification of a subset of patients at highest risk of early major complications, who may benefit from aggressive diagnostic and therapeutic strategies (*Znachi and Piazza, 1995*).

Extended ambulatory ECG monitoring in patients' customary environment provides clear evidence of circadian pattern in the myocardial ischemic events.

In patients with effort angina, the highest activity occurs between 6 AM and afternoon, this coincides with peaks in diurnal variation of frequency of acute MI, stroke and sudden death (*Pepine, 1991*).

However, retrospective analysis study showed higher evidence of episodes of transient myocardial ischemia during the afternoon and evening hours in the hospital phase after acute MI (*Astorri et al., 1993*).

Silent ischemia is frequently found after acute MI and has been identified in 25-60% of the patients with acute MI according to results of different studies and different criteria employed for diagnosis (*Lopez et al., 1990*).

AIM OF THE WORK

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- Evaluation of silent and symptomatic transient ischemic episodes following recent acute myocardial infarction, to detect high risk group of patients in need for further management whether surgical or interventional.
- Assessment of the ischemic circadian rhythm in patients with recent myocardial infarction.