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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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**PROGNOSTIC VALUE OF SOME DIAGNOSTIC AND
PHARMACOLOGICAL PROCEDURES ON ACUTE
MYOCARDIAL INFARCTION**

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Cup

THESIS

Submitted to the Faculty of Medicine
University of Alexandria
in partial fulfilment of the requirement for

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TO

MY MOTHER

MY WIFE

MY BROTHERS AND SISTER

ACKNOWLEDGEMENT

IT IS A GREAT HONOUR TO EXPRESS MY DEEPEST GRATITUDE AND CORDIAL APPRECIATION TO PROF. DR. MUHAMMAD I. ABD EL-RASSOUL PROFESSOR OF CHEST DISEASES , SUPERVISOR : CRITICAL CARE MEDICINE DEPARTMENT FOR HIS VALUABLE SUGGESTIONS, METICULOUS SUPERVISION AND ENCOURAGEMENT ALLOVER THE COURSE OF THIS WORK. HE DID EVERY EFFORT TO HELP ME TO COMPLETE THIS WORK.

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LIST OF ABBREVIATIONS

AMI	Acute Myocardial Infarction
CCUs	Coronary Care Units.
PTCA	Percutaneous Transluminal Coronary Angioplasty.
VT	Ventricular Tachycardia.
VPBs	Ventricular Premature Beats.
VF	Ventricular Fibrillation.
AV-Block	Atrioventricular Block.
LBBB	Left Bundle Branch Block.
RBBB	Right Bundle Branch Block.
SVT	Supraventricular Tachycardia.
DC	Direct Current.
AF	Atrial Fibrillation.
ACE-I	Angiotensin Converting Enzyme Inhibitors.
CK	Creatine Kinase.
DVT	Deep Vein Thrombosis.
LV	Left Ventricle.
IABP	Intra-Aortic Balloon Pump.
FIO ₂	Fraction Of Inspired Oxygen.
PEEP	Positive End Expiratory Pressure.
APSAC	Acylated Plasminogen Streptokinase Activator Complex.
C.P.I.	Coronary Prognostic Index.
LVEF	Left Ventricular Ejection Fraction.
ECG	Electrocardiography.
AST	Aspartate Aminotransferase.

SGOT	Serum Glutamic Oxalacetic Transaminase.
LDH	Lactic Dehydrogenase.
RAP	Right Atrial Pressure.
RVSP	Right Ventricular Systolic Pressure.
RVDP	Right Ventricular Diastolic Pressure.
PASP	Pulmonary Artery Systolic Pressure.
PADP	Pulmonary Artery Diastolic Pressure.
P_{AP}	Mean Pulmonary Artery Pressure.
PCWP	Pulmonary Capillary Wedge Pressure.
CHF	Congestive Heart Failure.
IDDM	Insulin Dependent Diabetes Mellitus.
NIDDM	Non Insulin Dependent Diabetes Mellitus.
CAD	Coronary Artery Disease.
AP	Angina Pectoris.
SK	Streptokinase.
BLS	Basic Life Support
ACLS	Advanced Cardiac Life Support.
CPCR	Cardiopulmonary Cerebral Resuscitation.

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Chapter I

introduction

INTRODUCTION

Acute Myocardial Infarction

In the United States, nearly 1.5 million patients annually suffer from Acute Myocardial Infarction(AMI). Although the death rate from AMI has declined by about 30 percent over the last decade, its development is still a fatal event in approximately one-third of patients.⁽¹⁾

About fifty percent of deaths associated with AMI occur within 1-2 hours of the event and are attributable to arrhythmias, most often ventricular fibrillation.⁽²⁾

Prolonged patient delay is the limiting step in defining the prehospital phase of AMI. In a recent study, only 20 percent of patients were found to present within two hours.⁽³⁾

If basic life support is initiated within 4 minutes of cardiac arrest, and if defibrillation is accomplished within 8 minutes, 40 percent of the patients will survive to be discharged from the hospital. To make a further substantial decrease in mortality rate, it will probably be necessary to reduce the incidence of deaths that occur outside the hospital.⁽⁴⁾

Several landmarks in the management of patients have caused the decline in the mortality from AMI. In the mid-1960's the concept of coronary care units was introduced. CCUs are better equipped than other fields of

cardiovascular medicine to face the transition from pathophysiologically based decision making to evidence based decision making.⁽⁵⁾

Subsequently, the introduction of the pulmonary artery balloon flotation catheter, set the stage of bedside hemodynamic monitoring and more precise management of heart failure and cardiogenic shock associated with AMI.⁽⁶⁾

The modern reperfusion era of the coronary care was ushered by thrombolytic therapy, increased use of antiplatelet therapy, and the development of percutaneous transluminal coronary angioplasty (PTCA) for AMI.⁽⁷⁾

Drug therapy continues to be an integral aspect of the treatment, with advances in the use of beta-adreno receptor blockers, antithrombotic regimens, nitrates, and angiotensin converting enzyme inhibitors. Physicians practice has changed dramatically as newer approaches to the care of the AMI patients have become available. Also, Invasive and / or non invasive procedures to evaluate prognosis and the need for further therapy are now used in most post-MI patients.⁽⁸⁾

The combination of these measures has led to a decline in the short-term mortality from complications of AMI.⁽⁹⁾

Expected complications of MI and their possible management

(I) Arrhythmias and conduction disturbances.

Most patients with myocardial infarction have some abnormality in cardiac rhythm or conduction especially during the first 24 hours. These