

ANESTHETIC MANAGEMENT OF PATIENTS WITH CARDIAC CONDUCTION DEFECTS

Essay Submitted for Partial Fulfillment
of the Master Degree in Anesthesia

617-967412
G. Y

BY

Ghada Yehia Abd-Allah

M.B.B.Ch., Ain Shams University



9-2-61

Under Supervision of

PROF. DR. SAMIR M. HASAN BEDIR

*Professor of Anesthesia and Intensive Care
Faculty of Medicine - Ain Shams University*

Dr. Amin Yassin Abd El-Salam

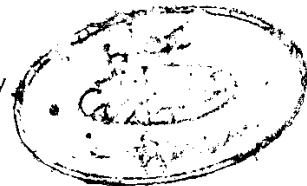
*Assistant Professor of Anesthesia and Intensive Care
Faculty of Medicine - Ain Shams University*

Dr. Fouad Abd El-Mohsen Zahra

*Lecturer of Anesthesia and Intensive Care
Faculty of Medicine - Ain Shams University*

**Faculty of Medicine
Ain Shams University**

*** 1997 ***





Acknowledgment

First, thanks are all to *God* for blessing me this work until it reached its end, as a little part of his generous help throughout life.

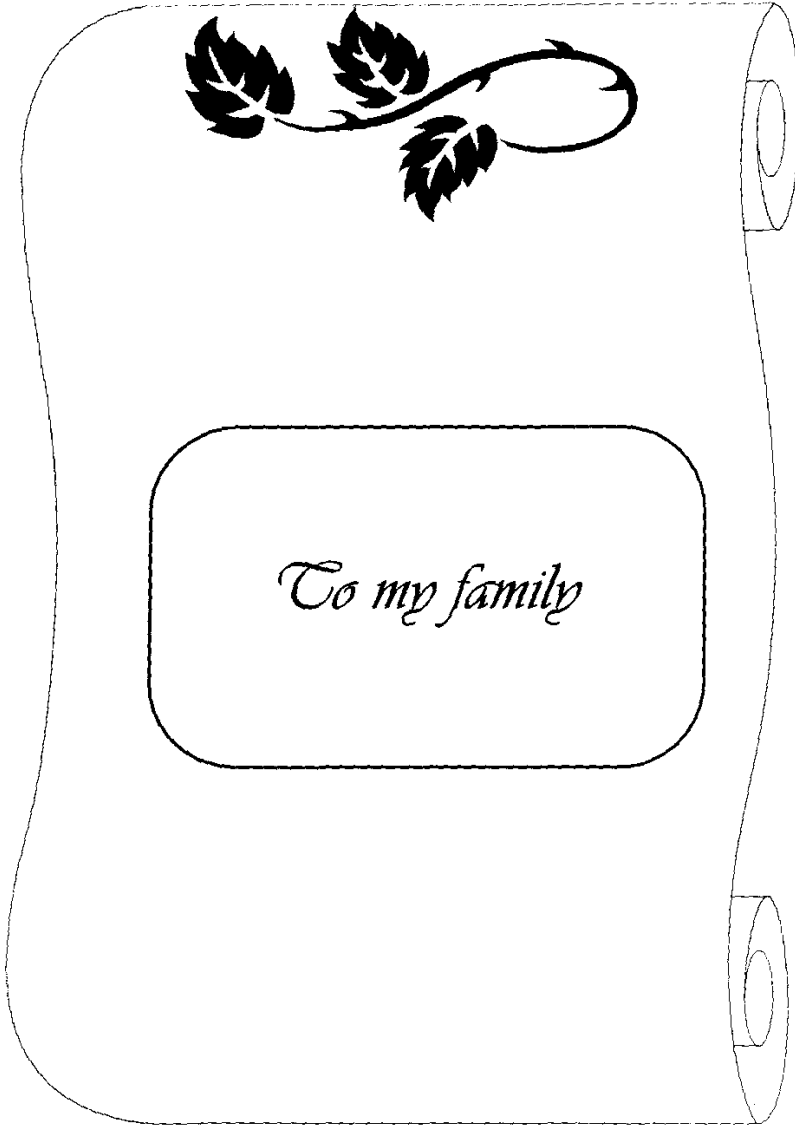
I would like to express my sincere appreciation and deep gratitude to *Prof. Dr. Samir M. Hasan Bedir*, Professor of Anesthesia and Intensive Care, Faculty of Medicine, Ain Shams University, for his moral support and continuous encouragement. Really, it is a great honor to work under his guidance and supervision.

It gives me a great pleasure to express my deep gratitude to *Dr. Amin Yassin Abd El-Salam*, Assistant Professor of Anesthesia and Intensive Care, Faculty of Medicine, Ain Shams University, for his kind advice, valuable supervision and his great efforts throughout this work.

No words can describe who deeply I am indebted to *Dr. Fouad Abd El-Mohsen Zahra*, Lecturer of Anesthesia and Intensive Care, Faculty of Medicine, Ain Shams University, for his sincere advice, patience, and encouragement.

My appreciation is extended to all staff-members of the Department of Anesthesiology and Intensive Care for their help and understanding.

Ghada Yehia Abd-Allah



List of Contents

	PAGE
Introduction	1
Chapter (1) : Anatomy of the Conducting System of the Heart	2 - 5
Chapter (2) : Electrophysiology of the Heart	6 - 11
Chapter (3) : Disorders of Cardiac Conduction	12 - 38
Chapter (4) : Anesthetic Management of Patient with Cardiac Conduction Defects	39 - 67
Summary	68 - 69
References	70 - 78
Arabic Summary	

Introduction

Introduction

Various forms of heart block can be seen in the perioperative period, complete heart block being the most serious form that requires permanent artificial cardiac pacemaker.

In pre-excitation syndromes, e.g., Wolf-Parkinson-White, there is an accessory pathway between the atria and the ventricles through which the cardiac impulse pass between the atria and the ventricles. Lack of the normal physiologic delay in conduction through the accessory pathway makes activation of the ventricles occur earlier than it would if the impulses had passes through the normal pathway. The goal of the anesthetic management is to avoid any event or drug that would enhance conduction of the cardiac impulse through the accessory pathway.

Another form of cardiac conduction disorders is the prolonged QT interval syndromes, general anesthesia may trigger a life-threatening ventricular dysrhythmia and cardiac arrest.

Cardiac pacing has permitted effective therapy for many patients and as the indications for pacing expand, the anesthesiologist encounters many patients with pacemakers who are undergoing either cardiac or non cardiac surgery.



*Anatomy of the
Conducting System of the
Heart*

Central Library - Ain Shams University