



RISK FACTORS AND PREDICTORS OF IN HOSPITAL MORTALITY IN REDO MITRAL VALVE REPLACEMENT OPERATIONS

Thesis

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بسم الله الرحمن الرحيم

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Dedication

This work is dedicated to my family, who all passed on a love of reading and respect for education.

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List of Abbreviations

ACE: Angiotensin Converting Enzyme

ACL: Anticardiolipin

AF: Atrial fibrillation

AHA: American Heart Association

APS: Antiphospholipid syndrome

AVR: Aortic valve replacement

ATS: Advancing The Standard

BMI: Body mass index

BSAC: British Society for Antimicrobial Chemotherapy

CHD: Congenital Heart Disease

CM: Carbomedics

COA: Clear Orifice Area

CVS: Cerebrovascular stroke

DM: Diabetes mellitus

DVI: The doppler velocity index

ECG: Electrocardiogram

ECMO: Extra-Corporeal Membrane Oxygenation

EF: Ejection fraction

EOA: Effective orifice area

ESC: European Society of Cardiology

ESRD: External Sewing Ring Diameter

FC: Functional class

FDA: Food and Drug Administration

GOA: Geometric Orifice Area

HF: Heart Failure

HP: Hemodynamic Plus

ICU: Intensive care unit

IE: Infective Endocarditis

IEOA: Indexed Effective Orifice Area

IOD: Internal Orifice Diameter

INR: International normalized ratio

LMWH: Low molecular weight heparin

LS: Libman-Sacks

LV: left ventricle

LVED: Left ventricular end diastole

LVEDD: Left ventricular end diastolic dimension

LVES: Left ventricular end systole

LVESD: Left ventricular end systolic dimension

LVOT: Left ventricular outflow tract

MCRI: The Medical Carbon Research Institute

MV: Mitral valve

MVR: Mitral valve replacement

PMVD: Prosthetic mechanical valve dysfunction

PPM: Prosthesis-Patient mismatch

P value: Probability value

PVE: Prosthetic valve Endocarditis

PVO: Prosthetic Valve Obstruction

PVT: Prosthetic valve thrombosis

RVSP: Right ventricular systolic pressure

SD: Standard deviation

SJM: St. Jude Medical

SLE: systemic lupus erythematosus

SPAP: Systolic pulmonary artery pressure

TAD: Tissue Annulus Diameter

TAVI: Transcatheter aortic valve implantation

TEE: Transesophageal echocardiography

TTE: Transthoracic echocardiography

UFH: Unfractionated Heparin

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ABSTRACT

Background: Recent decades showed steady increase in the number of cases referred for redo cardiac surgery, which are associated with increased risk of morbidity and mortality compared to the first-time operations. We aimed to investigate the risk factors for hospital mortality and morbidity in patients who underwent mitral valve replacements for previous mechanical mitral valve dysfunction. **Methodology:** sixty patients underwent the study from October 2014 till March 2015. Preoperative, operative, and postoperative data were analyzed and evaluated for risk factors affecting hospital mortality and morbidity. **Results:** The hospital mortality was 16.66%. New York Heart Association functional class, pulmonary hypertension, neurological event, total bypass time, cross clamp time, hepatic dysfunction and renal impairment are the most important risk factors for hospital mortality. **Conclusion:** Once significant valve dysfunction is first noted, re-operation should be undertaken to minimize operative risk to avoid mortality and post-operative morbidities.

Key words: mechanical valve, mitral, redo operation, functional class.

1. INTRODUCTION

AND

AIM OF WORK