



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

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MONA MAGHRABY



KONNO Procedure

Aortoventriculoplasty in Children with Left Ventricular Outflow Tract Obstruction

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لسببائك لا علم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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DEDICATED

To my father, my mother, my wife, my lovey son, and my whole family.

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List of Abbreviations

AR	: Aortic regurgitation
AS	: Aortic stenosis
ASR	: Aortic stenosis and regurgitation
CABG	: Coronary artery bypass grafting
CEP	: Carpentier—Edwards pericardial valve
CHD	: Coronary heart disease
CHF	: Congestive heart failure
CO	: Cardiac output
CPB	: Cardiopulmonary bypass
CT	: Computed tomography
HLHC	: Hypoplastic left heart complex
HR	: Heart rate
IE	: Infectious endocarditis
IV	: Intravenous
LVOTO	: Left ventricular outflow tract obstruction
MAP	: Mean arterial pressure
MRI	: Magnetic resonance imaging
MVR	: Mitral valve replacement

List of Abbreviations

PDA	: Patent ductus arteriosus
RVOTO	: Right ventricular outflow tract obstruction
SR	: Sinus rhythm
SVR	: Systemic vascular resistance
TEE	: Transesophageal echocardiography
VSD	: Ventricular septal defect

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Introduction

Complex left ventricular outflow tract obstruction continues to pose a serious challenge to the surgeon. Diffuse or unresectable subaortic obstruction requires aggressive treatment to achieve satisfactory relief of obstruction.[1]

Anterior aortoventriculoplasty described by Rastan and Konez and by Konno and Colleagues in 1975, is the most effective technique for enlargement of the aortic root.[1]

The Konno procedure was introduced to allow aortic valve replacement with an adequately sized mechanical valve for patients with a small aortic annulus.[2] The indications for Konno procedure were divided into three different groups: subaortic tunnel stenosis, multilevel left ventricular outflow tract obstruction and aortic valve stenosis.[3]

The Konno procedure is often considered as a final available option after initial attempts with less invasive catheter-based or surgical techniques fail to relieve left ventricular outflow tract obstruction.[3] This procedure is associated with significant reduction in LVOTO gradient, stabilization of left ventricular function, and improvement in function class.[3]