



# **Echocardiographic Study in Infants of Diabetic Mothers and Macrosomic Infants of Non Diabetic Mothers**

*Thesis*

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***Dedication***

*Dedicated with all affection to my mother  
Dr. Zeinab Abdallah Ali, consultant of  
Pediatrics, Al-Sahal Teaching Hospital.*

*To my husband Colonel Engineer Osama  
Mahmoud Soliman, and my dear children.*

*Whom their kindness, help and support can not  
be appreciated by words.*

*Reham Shaker*

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## *List of Abbreviations*

AA	Arachidonic acid
AFI	Amniotic fluid index
AGA	Appropriate for gestational age
Ao	Aorta
ASD	Atrial septal defect
AV	Atrio-ventricular
BMI	Body mass index
BWS	Beckwith-Wiedemann syndrome
CHD	Congenital heart Diseases
CNCC	Cardiac neural crest cells
COX2	Cyclooxygenase 2
C-peptide	Connecting peptide
EC	Endocardial cushion
EDC	Estimated date of confinement
EDD	End diastolic dimensions
EDS	End systolic dimensions
EF	Ejection Fraction
EFW	Estimated fetal weight
FiO <sub>2</sub>	Fractional inspired oxygen concentration
FS	Fractional Shortening
GDM	Gestational Diabetes Mellitus
GIP	Glucose-dependent insulintropic peptide
GK	Glucokinase
HbA1C	Glycated Hemoglobin A1C
HCMP	Hypertrophic cardiomyopathy

HDL	High density lipoprotein
IDM	Infant of Diabetic Mother
IGF-1	Insulin like growth factor-1
IGFBP-3	Insulin like growth factor-binding protein-3
IL	Interleukins
INF	Interferon
IUGR	Intra uterine growth retardation
IVC	Inferior vena cava
IVSD	Interventricular septum in diastole
IVSS	Interventricular septum in systole
LA	Left Atrium
LGA	Large for gestational age
L\S	Lecithin Sphingomyelin ratio
LV	Left ventricle
LVED	Left ventricular end-diastolic dimension
LVES	Left ventricular end-systolic dimension
LVOT	Left ventricular outflow tract obstruction
LVPW	Left ventricular posterior wall
MBG	Mean blood Glucose
MODY	Maturity-onset diabetes of the young
MS	Metabolic syndrome
OFC	Occipito frontal circumference
OFT	Outflow tract
PDA	Patent ductus arteriosus
PFO	Patent foramen Ovale
PG	Prostaglandins
PO <sub>2</sub>	Oxygen pressure
PTA	Persistent truncus arteriosus

PWD	Posterior wall dimensions in diastole
RA	Right atrium
RDS	Respiratory distress syndrome
ROS	Reactive oxygen species
RV	Right ventricle
SA node	Sino-atrial node
SD	Standard deviation
SGA	Small for gestational age
SF	Shortening fraction
SVC	Superior vena cava
TEE	Trans-esophageal echocardiography
TGA	Transposition of Great Vessels
TH	T-helper cells
TNF- $\alpha$	Tumor Necrosis Factor
VSD	Ventricular Septal Defect
ZnPP/H	Zinc protoporphyrin/heme



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