The value of the first trimester sonography in fetal anatomy scanning and detection of fetal anomalies

Thesis

Submitted for fulfillment of the M.Sc degree in Obstetrics and Gynecology

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بسم الله الرحمن الرحيم

وَلَقَدْ خَلَقْنَا الإِنسَانَ مِن سُلالَةٍ مِّن طِينٍ (١٢)

ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِين (١٣)

ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً

فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ

أَنشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ (١٤)

صدق الله العظيم

سورة المؤمنون(آية ١٢-١٤)

Dedication To...

My First Country (Yemen)

The beautiful country that I love more than myself

My Second Country (Egypt)

A fascinating land with the most hospitable, warm and honest people.

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For their commitment and amazing support of my work and training during the last 9 months.

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Wahad ,

Wada

& Wahag

For their love and continued support

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LIST OF ABBREVIATIONS

°C	Degree centigrate
2D	Two dimensional
3D	Three dimensional
ACOG	American Collegue of Obstetricians and Gynecologists
AFP	Alpha-fetoprotein
AMA	Advanced Maternal Age
BMI	Body Mass Index
B-mode	Brightness mode
BPD	Biparietal diameter
bpm	Beat per minute
CNS	Central Nervous system
CRL	Crown-rump length
CVS	Chorionic villus sampling
CW	Continuous wave
DHEAS	Dehydroepiandrosterone sulfate
DS	Down syndrome
DV	Ductus venosus[
ECC syndrome	Ectrodactyly-ectodermal dysplasia-cleft palate syndrome
FASTER	First and second trimester evaluation of risk for aneuploidy
FHR	Fetal Heart rate
FL	Femur length
FMF	Fetal Medicine Foundation
GA	Gestational Age
hCG	Human chorionic gonadotropin
IVF	In vitro fertilization
KHZ	Kilo Hertz
LHCGR	Luteinizind hormone/choriogonadotrophin receptor
LMP	Last menstrual period

m/s	Metre per second
MHZ	Mega Hertz
M-mode	Motion mode
MoM	Multiples of the Median
MSAFP	Maternal serum alpha-fetoprotein
NB	Nasal bone
NT	Nuchal translucency
NTD	Neural Tube Defect
PAPP-A	Pregnancy associated plasma protein A
PUDVC	Pulsed Ultrasound Doppler Velocity
SD	Standard Deviation
SLE	Systemic Lupus Erythmatous
SPR	Screen Positive rate
TAS	Trans-abdominal sonography
TI	Thermal Index
TIB	Thermal Index for soft tissue
TIS	Thermal Index for bone
TVS	Trans-vaginal sonography
UDV	Ultrasound Doppler Velocimetry
uE_3	Unconjugated estriol three
US	Ultrasound
VATER association	Vertebral defect, Anal atresia, Tracheo-esophageal fistula, Esophageal atresia, Radial limd and Renal defect
VSD	Ventricular septal defect

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