
ROLE OF MRI VERSUS ULTRASOUND IN THE ASSESSMENT OF PLACENTAL ABNORMALITIES AND DISEASES

Thesis

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BY

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"قَالُوا سُبْحَانَكَ لَا إِلَهَ إِلَّا هُوَ الْعَزِيزُ الْحَكِيمُ"

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To My Father

ABSTRACT

KEY WORDS:

**MRI - Ultrasound - Placental abnormalities -
Placenta previa - Placental invasion**

This study included fifty pregnant females with placental abnormalities (40 with abnormal placental location and/or implantation and 10 other variable placental abnormalities). They were subjected to Ultrasound and Magnetic resonance imaging examination of the placenta. Our results showed that Magnetic resonance imaging is complementary to Ultrasound and it is important for the accurate diagnosis of placental abnormalities especially placenta previa and the seriously co-existing placenta accreta.

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LIST OF ABBREVIATIONS

ADC	Apparent Diffusion Coefficient
Beta-HCG	Beta Human Chorionic Gonadotropin
B-FFE	Balanced fast field echo
CS	Cesarean scar
CT	Computed Tomography
DiDi	Diamniotic-Dichorionic
DiMo	Diamniotic-Monochorionic
DIC	Disseminated Intravascular Coagulation
DWI	Diffusion weighted image
FGR	Fetal growth retardation
FISP	Fast Imaging with Steady-state Precession
FOV	Field of view
FSE	Fast spin echo
4D	Four Dimensional
GA	Gestational age
GTD	Gestational Trophoblastic Disease
HASTE	Half Fourier Acquisition Single Shot Turbo Spin Echo
HCG	Human Chorionic Gonadotropin
Ig G	Immunoglobulin G
IT	Intermediate Trophoblast
IUGR	Intra Uterine Growth Retardation
MHC	Major Histocompatibility Complexes
MHz	Megahertz
MoMo	Monoamniotic-Monochorionic
MR	Magnetic Resonance
MRI	Magnetic Resonance Imaging
NPV	Negative predictive value
PA	Placenta accreta

PAD	Placental adhesive disorders
PPV	Positive predictive value
PSTT	Placental Site Trophoblastic Tumor
RARE	Rapid Acquisition with Relaxation Enhancement
RPOC	Retained Product Of Conception
SE	Spin Echo
SLE	Systemic lupus erythromatosis
SSFSE	Single Shot Fast Spin Echo
STs	Syncytio Trophoblasts
T	Tesla
TAS	Transabdominal ultrasonography
TE	Echo Time
TR	Repetition Time
3D	Three Dimensional
3DPD	Three Dimensional Power Doppler
TLS	Translabial ultrasonography
TVS	Transvaginal ultrasonography
2D	Two Dimensional
Rh	Rhesus
US	Ultra Sound
Wks	Weeks

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Introduction