

# **Prediction of Fetal Macrosomia By Measuring Cross- Sectional Area of Umbilical Cord & The Central Placental Thickness**

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*By*

**EMAN SAID ATTIA**

M.B.B.ch

*Ain -Shams University 2007*

Resident of Obstetrics & Gynecology – El- Mataria Teaching Hospital

*Under supervision of*

**Prof. Abd El-Megeed Ismail Abd El-Megeed**

*Professor of Obstetrics and Gynecology*

*Faculty of Medicine, Ain Shams University*

**Dr. Ahmed Sherif Abdel El Hamid**

*Lecturer of Obstetrics and Gynecology*

*Faculty of Medicine, Ain Shams University*

**Faculty of Medicine  
Ain-Shams University  
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"ويسئلونك عن الروح قل الروح  
من أمر ربي و ما أوتيتم من  
العلم إلا قليلا"

( ) :





Praise is to **Allah** and gratitude is given where it is due to **Allah**, I acknowledge the aid of **Allah**.

I can't thank my parents enough for everything they have done, there is no word can be written or said to translate my feeling to my family (**My Mother, My Father, My sister Shiema, My brothers Hosam, Ahmed and Maged and My Husband Ahmed** )

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## List of Abbreviations

|              |       |   |
|--------------|-------|---|
| <b>AC</b>    | ..... | Abdominal Circumference                             |
| <b>ACOG</b>  | ...   | American College of Obstetricians and Gynecologists |
| <b>BW</b>    | ..... | Birth Weigh   |
| <b>BMI</b>   | ..... | Body Mass Index                                     |
| <b>BPD</b>   | ..... | Biparietal Diameter                                 |
| <b>CPP</b>   | ..... | Cephalo-Pelvic Proportion                           |
| <b>CS</b>    | ..... | Cesarean Section                                    |
| <b>CI</b>    | ..... | Confidence interval                                 |
| <b>2D</b>    | ..... | 2 Dimensional                                       |
| <b>3D</b>    | ..... | 3 Dimensional                                       |
| <b>EFW</b>   | ..... | Estimation of Fetal Weight                          |
| <b>AC</b>    | ..... | Abdominal Circumference                             |
| <b>FL</b>    | ..... | Femur Length  |
| <b>GDM</b>   | ....  | Gestational Diabetes Mellitus                       |
| <b>HC</b>    | ..... | Head Circumference                                  |
| <b>IGF</b>   | ..... | Insulin-like Growth Factor                          |
| <b>IDM</b>   | ..... | Infant of diabetic mother                           |
| <b>GLUT3</b> |       | Glucose transporter 3                               |
| <b>PT</b>    | ..... | Placental thickness                                 |
| <b>UCA</b>   | ..... | Umbilical cord area                                 |



# **PREDICTION OF FETAL MACROSOMIA BY MEASURING CROSS-SECTIONAL AREA OF UMBILICAL CORD & THE CENTRAL PLACENTAL THICKNESS**

By  
**Eman Said Attia Mohamed Metwally**

## **Abstract**

**Introduction:** Fetal macrosomia is defined as a birth weight of greater than the ninetieth percentile for gestational age after correcting for neonatal ethnicity. It is also defined as a birth weight of 4000 gm or higher, and is associated with increased maternal and neonatal morbidity, Shoulder dystocia, one of the worst obstetric emergencies

**Patients and methods:** This study included 160 pregnant women, who were admitted for labor at the casualty of Ain Shams University Maternity Hospital, The women included in this study had no medical disorders and had singleton pregnancies without major anomalies as indicated by ultrasound examination, Women with liver diseases or pregnancy related complications were excluded from this study.

**Results:** When PT is measured  $\geq 45$  mm and UCA is measured  $\geq 2.35$  cm<sup>2</sup>, the fetus should be diagnosed as macrosomic fetus and should be closely monitored through a carefully plotted partogram, as those are more likely for delayed progress of labor and delivery by CS.