Abstract

Background: Estimation of fetal weight is an important, challenging aspect of obstetric care. Even with advancements in antenatal ultrasonographic technology, estimation error continues to be a significant problem, especially for macrosomic infants of diabetic mothers.

Aim of the work

The purpose of this study is to assess the accuracy of fetal weight estimation in macrosmic feti by sonographic measure of fetal cheek-to-cheek diameter.

Methodology: Value of fetal cheek- to- cheek diameter in estimation of fetal weight in macrosomic feti. Ain Shams University Maternity Hospital. Accuracy of fetal weight estimation in macrosmic feti by sonographic measure of fetal cheek-to-cheek diameter.

Results: The current study was conducted at Ain Shams University Maternity Hospital during the period between 4 January and 30 July 2016.A total of 100 pregnant women were included in the current study.

Conclusion: Macrosomic infants showed higher biometric measurements regarding the following: CCD, CCD/BPD, AC, EFW and actual body weight. Regarding infants of diabetic mothers, they had higher CCD, CCD/BPD, AC, EFW and actual body weight.Diabetic patients show higher rate of have macrosomic fetuses than non diabetic patients.

Recommendations: For ultrasonographic diagnosis and suspection of macrosomia, many serial scans should be done rather than only one scan. The results obtained in the diagnosis of macrosomia by CCD are discordant. We wait the results of the tridimensional ultrasonography and fetal magnetic resonance imaging (fMRI) in the estimation of fetal weight.

Keywords: Value of Fetal, Cheek Diameter, Estimation, Fetal Weight, Macrosomic Feti

Contents

List of Abbreviations

Abbrev.	Meaning
AC	Abdominal Circumference
AUC (95% CI)	Area under the curve and its 95% confidence interval
BMI	Body mass index
BPD	Biparietal Diameter
C. S	Cesarean Section
CCD	Cheek to cheek diameter
CRL	Crown-rump length
EFW	Estimated fetal weight
FL	Femur length
g/cm3	Gram / cubic centimeter
H	Hour
HC	Head circumference
HL	Humerus length
IDDM	Insulin-dependent diabetes mellitus
IGFBP	Insulin-like growth factor binding protein
IGFs	Insulin-like growth factors
IQR	Interquartile range
IUGR	Intrauterine growth factors
LGA	Large-for-gestational age
LR+	Positive likelihood ratio
mg/dL	Milligram / deciliter
MPD (95% CI)	Mean paired difference and its 95% confidence interval

Ng	Nanogram
NIDDM	Noninsulin-dependent diabetes mellitus
NPV	Negative predictive value
PPV	Positive predictive value
PGM	Phosphoglucomutase
ROC	Receiver-operator characteristic
SD	Standard deviation
SGA	Small-for-gestational
US	Ultrasound

List of Figures

List of Tables

Protocol

Introduction

Aim of the Work

Review of Literature

CHAPTER (I)

Pathophysiology of Fetal Overgrowth

CHAPTER (II)

Estimation of Fetal Weight

CHAPTER (III)

Fetal Macrosomia

CHAPTER (IV)

Mode of Delivery