بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

THE USE OF ULTRASOUND IN PREDICTION OF FETAL COMPLICATIONS AMONG DIABETIC PATIENTS IN LATE PREGNANCY

Submitted By
Hanan Ahmed El-Sherbiny Ismail
M.B.B.Ch., Faculty of Medicine, Cairo University, 1988
Master of (Obstetrics & Gynecology), Faculty of Medicine, Zagazig University, 1996

A Thesis Submitted in Partial Fulfillment
Of
The Requirement for the Doctor of Philosophy Degree
In
Environmental Sciences

Department of Environmental Medical Sciences
Institute of Environmental Studies and Research
Ain Shams University

2020

APPROVAL SHEET

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بسم الله الرحمن الرحيم

قالوا

سبحانك لا علم لنا إلا ما علمتنا إنك أنت العليم الحكيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

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Hanan El-Sherbiny
2020

ABSTRACT

Introduction:
Diabetes mellitus, one of the most common medical complications, has become a major challenging threat in a pregnant woman. It is associated with various maternal and fetal complications which include polyhydramnios, macrosomia, operative interference, shoulder dystocia, birth injuries and perinatal mortality. Effective treatment of pre-existing as well as gestational diabetes mellitus and early prediction of fetal complications will improve outcome and reduce perinatal mortality. **Aim of the study:** The aim of this study to: - Evaluate the effect of diabetes mellitus on fetal outcome. – Assess role of ultrasound in prediction of fetal complications in late diabetic pregnancy using sonographic fetal parameters. – Compare between diabetic and non-diabetic regarding ultrasonographic fetal measurements and occurrence of maternal and fetal complications. **Patients and Methods:** A prospective study including 82 women with diabetic pregnancy (diabetic group) and 156 pregnant women with normal GTT were included in this study and considered as control group. It was conducted in Boulak El-Dakrour General Hospital over a period of 2 years. Women in both groups were subjected to ultrasonographic examination at 27-28 weeks of gestation and at 36-37 weeks. At each examination fetal anthroprometric parameters, umbilical cord thickness and hemodynamic parameters of umbilical artery were measured. **Results:** of the present study revealed that: There was significant difference between diabetic and control groups regarding sonographic predictors of fetal macrosomia interm of abdominal circumference, estimated fetal body weight and Wharton's jelly area. Fetuses of mothers in the diabetic group showed statistically significant increase of fetal macrosomia, low birth weight and intrauterine fetal demise in comparison to the control group; the diabetic group showed statistically significant increase of cesarean delivery in comparison to the control group.

Conclusion: The results of the present study suggest the possibility of using sonographically determined fetal abdominal circumference, Wharton's jelly area, estimated fetal body weight measurements to distinguish women at high risk for abnormal fetal growth and disproportion potentially resulting in early detection and reducing fetal morbidity. In addition, these parameters can be considered as an effective, noninvasive and cost-effective method that can prove useful for evaluating the fetal consequences of maternal hyperglycemia.
Keywords: Ultrasound, prediction of fetal complications, diabetic patients, late pregnancy.

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