

لم يتم ادخالها الى المستوى
الرئيسي



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Department of Nursing



**Prevalence of Gestational Diabetes Mellitus and Main
Immediately Complication after Delivery in River Nile
State (Atbara, Eldamer, Berber, Sulaa) Hospitals**

*A research submitted for partial fulfillment the degree of Nursing
B.Sc.*

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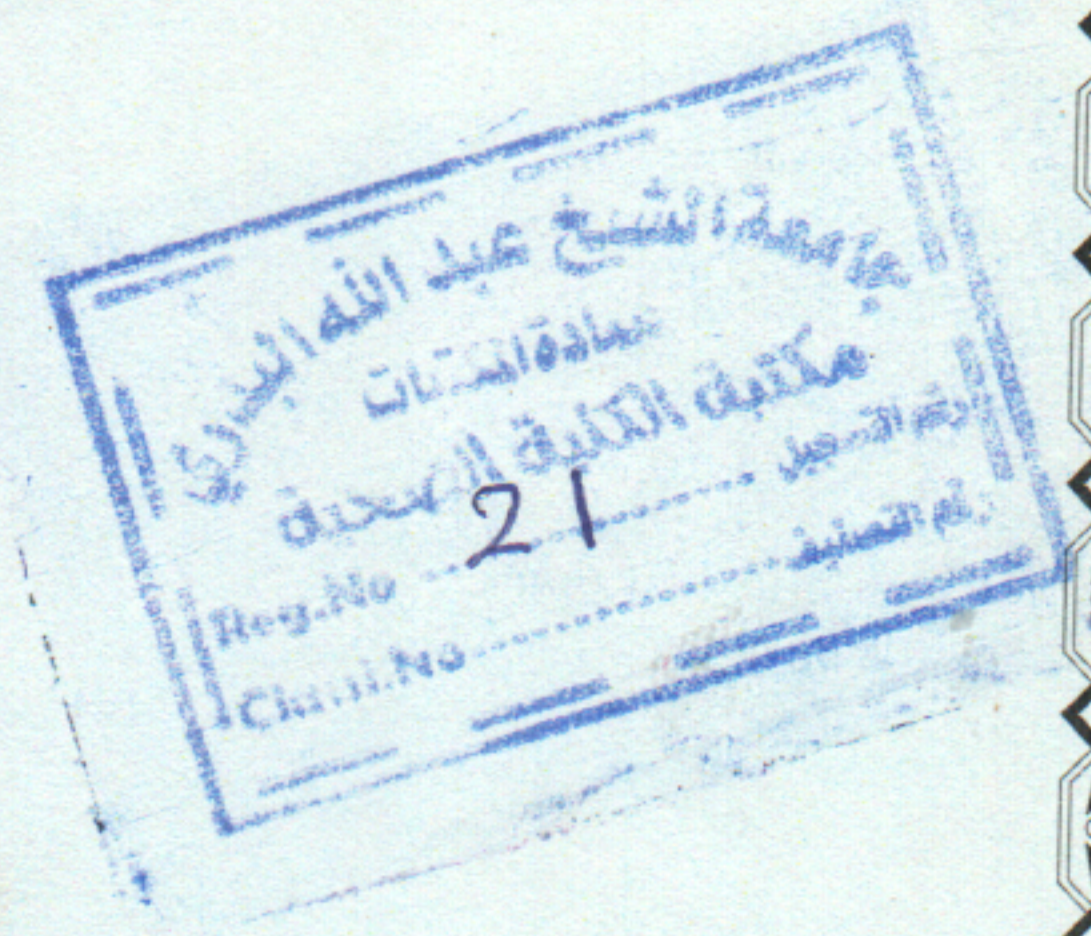
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الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى :

﴿وَإِذَا مَرَضْتُ فَبُهِتَ الَّذِينَ
أُولَىٰ بِمِثْلِ مَا مَرَضْتُ﴾

صدق الله العظيم

سورة الشعراء الآية (80)

Dedication

To our mothers and our fathers

All ways doing the best for us...

For everyone who teaching us a letter...

For everyone helped us in this research...

Acknowledgement

To the light, our god, who guided us through the way..

To Dr. Alwathig Yahia

*for her great efforts of supervising and leading us, to
accomplish this fine work..*

To our friends and families

*they were a great source of support and encouragement, we
thank them all and wish them all the best in their lives..*

To those who has been with us step by step

family of Dania library..

*To every person gave us something to light our pathway, we
thank them for believing in us..*

Abstract

Back ground: Gestational diabetes is the condition in which diabetes is diagnosed for the first time during pregnancy. Diabetes occurs when the body cannot produce enough insulin, a hormone produced by the pancreas and performs two functions: Regulates the amount of sugar in the blood to extend the body energy. Store the amounts of sugar that the body does not need immediately. During pregnancy, your body needs to secrete an extra amount of insulin to meet your baby's needs, especially since the middle of the pregnancy journey. If your body can not perform this function, your blood sugar levels will rise and you will get gestational diabetes. Gestational diabetes usually disappears after your baby is born. As opposed to other types of diabetes that accompany human life.

Objective: Prevalence of gestational diabetes mellitus and main immediately complication after delivery.

Method: This analytical cross-sectional study aimed to assess prevalence of gestational diabetes mellitus and main immediately complications of maternal and fetus after delivery in River Nile State (Atbara, Eldamer, Berber, Sulaa) hospitals during period from (March – July) 2018.

Data management and Result: The data will be manage by excel program and SPSS. The data P value will consider to be significant if p value 0,05, calculate interval will use other Biostatistical test. T test and CH: sample technique. The data will present as tables and graphs. Prevalence of gestational diabetes mellitus in river Nile state was 4.9%, the main immeditly complication of mother after delivery is prerupture of membrane 5.5%, preterm labor 6.2% and eclampsia 0.5%, and the maim immediately complication of fetal after deliver is jaundice 3.4%, septicemia 2.3%, decrease of glucose level 2.9%, congenital anomalies 1% and respiratory distress 2.6%

مستخلص الأطروحة

خلفية: سكري الحمل هو الحالة التي تشخص فيها الإصابة بمرض السكري للمرة الأولى خلال فترة الحمل. تحدث الإصابة بمرض السكري عندما يعجز الجسم عن إفراز كمية كافية من الأنسولين، وهو هرمون يفرزه البنكرياس ويؤدي وظيفتين: ينظم كمية السكر في الدم لمد الجسم بالطاقة. يخزن كميات السكر التي لا يحتاجها الجسم بشكل فوري. أثناء فترة الحمل، يتوجب على الجسم إفراز كمية إضافية من الأنسولين لتلبية احتياجات طفلك، خاصة منذ بداية منتصف رحلة الحمل. إذا لم يتمكن جسمك من أداء هذه الوظيفة، فسترتفع مستويات السكر في الدم وتتعرضين للإصابة بسكري الحمل. يختفي سكري الحمل عادة بعد ولادة طفلك. على خلاف أنواع مرض السكري الأخرى والتي ترافق الإنسان مدى الحياة.

الهدف: انتشار سكري الحمل والمضاعفات المباشرة الرئيسية بعد الولادة.

منهجية البحث: تهدف هذه الدراسة التحليلية المستعرضة إلى تقييم معدل انتشار سكري الحمل ومضاعفات الأم والطفل مباشرة بعد الولادة في ولاية نهر النيل خلال الفترة من (مارس - يوليو) 2018. إدارة البيانات والنتيجة: سيتم إدارة البيانات من خلال برنامج Excel و SPSS. ستعتبر قيمة P للبيانات ذات دلالة إذا كانت p قيمة 0.05، فسيستخدم حساب الفاصل الزمني اختبار إحصائي حيوي آخر. اختبار T و CH: أسلوب العينة. سوف تقدم البيانات كجداول ورسوم بيانية.

انتشار داء السكري الحلمي في ولاية نهر النيل بلغ 4.9%، ومضاعفات الأم بشكل إيجابي بعد الولادة هي انكسار مبكر للهادية 5.5%، والولادة المبكرة 6.2% والكليش 0.5%، والتشوه الفوري للجنين بعد الولادة هو اليرقان 3.4%، تسمم 2.3%، انخفاض مستوى الجلوكوز 2.9%، التشوهات الخلقية 1% وضيق التنفس 2.6%

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List of Abbreviations

BMI	Body Mass Index
GDM	Gestational Diabetes Mellitus
WHO	World Health Organization
IDDM	Insulin Dependent Diabetes Mellitus
NIDDM	Non-Insulin Dependent Diabetes Mellitus
IGT	Impaired Glucose Tolerance

CHAPTER ONE

Introduction

1.1 Introduction:

Diabetes is a chronic ,metabolic disease characterized by elevated levels of blood glucose or blood sugar that increase in insulin attack body metabolism of carbohydrate and protein, which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves. It include four type of diabetes, the first type known as insulin dependent diabetes mellitus (IDDM) or juvenile, which fail to produce insulin which is essential for lowering the blood sugar. Second type known as non-insulin dependent diabetes mellitus (NIDDM) or adult onset where the body is unable to respond properly to the produce insulin by pancreas. Third type gestational diabetes mellitus. Four type secondary due to poor in pancreas function [1].

Gestational diabetes is high blood sugar that develops during pregnancy and usually disappears after giving birth. It can occur at any stage of pregnancy, but is more common in the second half [1].

Gestational Diabetes Mellitus (GDM) has adverse effect on the both mother and fetus, They are listed as fetal and maternal problem. Fetal complications include macrosomia, neonatal hypoglycemia, prenatal mortality, congenital malformation, hyperbillrubinemia, polycythaemia, hypocalcaemia, and respiratory distress syndrome. This results from maternal hyperglycemia causing fetal hyperinsulinemia. Delayed impediments to the young generation of people include an increased risk of glucose intolerance, and obesity [1].

Gestational Diabetes Mellitus (GDM) is defined as the appearance of hyperglycemia in pregnant women not previously known to be diabetic. Risk factors for the development of GDM include obesity, diabetes in first degree

relatives, a history of impaired glucose tolerance (IGT) and previous infants with macrosomia. GDM is associated with a higher risk of subsequent development of maternal diabetes later in life. In pre-diabetic state of GDM is characterized by impaired insulin secretion and insulin resistance [2,3]. This study was conducted to investigate the plasma blood glucose levels in Sudanese women with gestational diabetes mellitus (GDM).

Maternal factors associated with an increased incidence of macrosomia include hyperglycemia, high body mass index (BMI), older age, preeclampsia and multiparity, shoulder dystocia, and an increased rate of caesarean deliveries [4,5,6]. More important is women with GDM have an increased risk of developing diabetes after pregnancy when compared to the general population, with a conversion rate of up to 3% per year [7].

Globally prevalence of hyperglycemia in pregnancy in women 20–49 years was estimated to be 16.9% and affecting 21.4 million live births, in 2013, and more than 90% of cases are estimated to occur in low- and middle-income countries. The prevalence of gestational diabetes in china GDM has increased from 2.3% in 1999 to 6.8% in 2008 is approximately 7% but in some of the developed countries the prevalence rates are higher 19% [8,9,10,11].

The prevalence of gestational diabetes in kingdom of Saudi Arabia varies from 8.9%-12.5% according to studies reported in 2000 [12]. Pregnant women who are diabetic are at risk of having cesarean sections because of fetal macrosomia and macrosomia is a complication of maternal hyperglycemia [13]. Approximately 95% of the maternal glucose level comes back to normal after delivery however they are at risk of developing type II diabetes in their later life [14,15,16]. The gestational diabetes is not only a risk for mother even the fetus is

at risk of developing hypoglycemia and respiratory distress syndrome [17]. The risk factor for gestational diabetes includes both modifiable factors which are obesity and life style factors and non-modifiable factor which is a family history of diabetes [18,19]. The prevalence of gestational diabetes is steadily increasing over a period of years in the kingdom of Saudi Arabia therefore we performed a systematic review in order to present the prevalence rate of gestational diabetes and the reported complications of the same in both mother and the fetus. This review also describes the various risk factors for the gestational diabetes which are mentioned in the literature. A significant increase in Gestational Diabetes Mellitus (GDM) prevalence was noted in the US and Australia, where a higher relative increase was observed in young women [20,21]. In urban China, the adjusted prevalence of GDM was reported to have increased by 2.8 times during the years 1999–2008 from 2.4% to 6.8% [22].

Prevalence of Gestational diabetes mellitus in Sudan: Diabetes in pregnancy either Gestational Diabetes Mellitus (GDM) or pre-gestational diabetes mellitus (PGDM), is linked to several maternal and fetal/neonatal complications. These include pregnancy induced hypertension, preeclampsia, operative delivery, fetal macrosomia, neonatal asphyxia, birth trauma, respiratory distress, prematurity and congenital defects. With the advance of medical care, higher rates of complications among women with GDM are no longer justified [23].

1.2 Research Problem:

In general gestational diabetes mellitus was increase in prevalence among adult there Suspect that increase diabetic pregnant also may affect gestational diabetes mellitus. Prevalence the health system have little information about status result.

1.3 Justifications:

Gestational Diabetes Mellitus (GDM) causes life threatening complication to the mother and the child. Prevalent progression of GDM leads to type 2 diabetes in future . Gestational Diabetes Mellitus (GDM) is a preventable disease so in order to avoid complication it becomes necessary to identify the risk indicators at the earliest. This would help the mother to take a preventive step for herself and the child as well. The MDG 4 and 5 also states reduce child mortality and improve maternal health. Pregnancy with complication has to be identified and timely action to be taken for safer deliveries by skilled personnel. It is the duty of the researcher to make the public realize the importance of GDM. Research will let people know the prevalence and prevention complication in river Nile state.