

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Chapter I:

DIABETES MELLITUS

Chapter II:

UTEROPLACENTAL BLOOD FLOW

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ADVERSE EFFECT OF DIABETES ON PREGNANCY

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MEDICAL MANAGEMENT OF DIABETES DURING PREGNANCY

DOPPLER STUDIES IN PREGNANCIES

WITH

DIABETES MELLITUS

ARABIC SUMMARY

SUMMARY

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INTRODUCTION

***Changes in uteroplacental
circulation in pregnant diabetics
and its effect on the outcome of
pregnancy***

Essay

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**التغيرات الحادثة في الدورة الدموية للرحم والمشيمة في الحوامل
المرضى بالسكر وتأثيراتها على نتيجة الحمل**

بحث

مقدم للحصول على درجة الماجستير
في الأمراض الباطنة

مقدم من

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Definition:

The term diabetes mellitus describes several syndromes of abnormal carbohydrate metabolism that are characterized by hyperglycemia. It is associated with a relative or absolute impairment in insulin secretion, along with varying degrees of peripheral resistance to the action of insulin. There is no distinction between primary and secondary causes of diabetes. The terms type 1 and type 2 are to be used, whereas terms like insulin-dependent, non-insulin-dependent, juvenile-onset, maturity-onset, adult-onset, maturity-onset diabetes of the young (MODY) are to be eliminated. This change reflects an attempt to classify diabetes according to etiologic differences (as far as they are understood) and to move away from descriptions based upon age at onset or type of treatment (Genuth et al, 2003).

Prevalence:

Recent estimates indicate there were 171 million people in the world with diabetes in the year 2000 and this is projected to increase to 366 million by 2030. (Wild et al, 2004).

Categories of Glucose Tolerance:

Diabetes mellitus:

Regardless of underlying cause, is sub-divided into: ***Insulin requiring for survival*** (corresponding to the former clinical class of "Insulin Dependent Diabetes Mellitus - IDDM"), e.g. C-peptide deficient;

Insulin requiring for control, i.e. metabolic control, rather than for survival, e.g. some endogenous insulin secretion but insufficient to achieve normoglycaemia without added exogenous insulin; and *Not insulin requiring*, i.e. those who may be controlled satisfactorily by non-pharmacological methods or drugs other than insulin. Together, the latter two sub-divisions constitute the former class of NIDDM. (Alberti and Zimmet , 1998).

Impaired glucose regulation - Impaired Glucose Tolerance (IGT) and Impaired Fasting Glycaemia (IFG)

Impaired glucose regulation (IGT and IFG) refers to a metabolic state intermediate between normal glucose homeostasis and diabetes. It should be stated unequivocally, however, that IFG and IGT are not interchangeable and represent different abnormalities of glucose regulation, one in the fasting state and one post-prandial (Shaw et al, 1999).

IGT, rather than being a class as in the previous classification, is categorized as a stage in the natural history of disordered carbohydrate metabolism. A stage of IFG is also recognized because such subjects, like those with IGT, have increased risks of progressing to diabetes and macrovascular disease, although prospective data are sparse and early data suggest a lower risk of progression than IGT .Although a similar CVD risk factor profile has been shown in IFG and IGT subjects (Larsson et al 1998).

IFG refers to fasting glucose concentrations which are lower than those required to diagnose diabetes mellitus but higher than the "normal"