CAUSES OF DIABETES

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 Diabetes mellitus represents a set of autoimmune, metabolic and genetic disorders that share one major characteristic – hyperglycaemia. The recommended way of measuring plasma glucose and the threshold used to define what is normal or abnormal have gone through several iterations over the past few decades. These recommendations, and the current definitions of diabetes mellitus and intermediate states of hyperglycaemia.(A group of diseases that result in too much sugar in the blood (high blood glucose).)There different types of diabetes melilitus e.gType 1 diabetes. Type 1 diabetes is most commonly diagnosed in children and teenagers. It’s an autoimmune condition. When you have type 1 diabetes, your immune system attacks the cells in your pancreas responsible for making insulin.Type 2 diabetes. Type 2 diabetes happens when your body stops responding to the insulin your pancreas makes. Over time, your pancreas also stops producing enough insulin. It’s generally linked to a combination of genetic and lifestyle factors.Gestational diabetes. This type of diabetes is a response to the hormonal changes that happen during pregnancy. The hormones made in the placenta can lower your body’s sensitivity to insulin. This may result in high blood sugar during pregnancy, etc.

 Meternal obesity and metabolic disorders

 In the epidemiologic context of maternal obesity and type 2 diabetes (T2D), the incidence of gestational diabetes has significantly increased in the last decades. Infants of diabetic mothers are prone to various neonatal adverse outcomes, including metabolic and hematologic disorders, respiratory distress, cardiac disorders and neurologic impairment due to perinatal asphyxia and birth traumas, among others. Macrosomia is the most constant

consequence of diabetes and its severity is mainly influenced by maternal blood glucose level. Neonatal hypoglycemia is the main metabolic disorder that should be prevented as soon as possible after birth. The severity of macrosomia and the maternal health condition have a strong impact on the frequency and the severity of adverse neonatal outcomes. Pregestational T2D and maternal obesity significantly increase the risk of perinatal death and birth defects(. World journal of diabetes 6 (5), 734, 2015)

 Vascular complications

 Vascular complications are the main cause of morbidity in diabetes mellitus. However, the risk factors for vascular disease remain uncompletely elucidated. It has been previously suggested that factors other than glycemia may contribute to the development of vasculopathy. In this study we determined the prevalence of phospholipid-binding antibodies in uncomplicated and complicated diabetes.

 We studied 53 uncomplicated diabetic patients, with type 1 (n=32) or type 2 (n=21) diabetes; 23 diabetic patients with proliferative retinopathy; 28 diabetic patients with an overt nephropathy; 37 diabetic patients with macroangiopathy and 22 non diabetic control patients. Both lupus anticoagulant and anticardiolipin antibodies were determined.Other risk factors for macroangiopathy were analysed.

 The prevalence of phospholipid-binding antibodies was similar in uncomplicated diabetic patients and in controls (type 1 diabetes: 9.4%; type 2 diabetes: 9.5%; control group: 4.6%; P=0.76). In complicated diabetes, the frequency of these antibodies was increased only in patients with overt nephropathy (32.1%, P=0.01) or with macroangiopathy (32.4%, P=0.01) while patients with isolated retinopathy were comparable with uncomplicated diabetic patients (4.3%, P=0.66).Uncomplicated diabetes was not associated with phospholipid-binding antibodies. We found a higher prevalence of these antibodies in diabetic patients with macroangiopathy or nephropathy. These results suggest a potential role of phospholipid-binding antibodies in the progression of vascular complications in diabetes mellitus., (J Bringer

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