Epidemiology of
Diabetes mellitus

Diabetes Mellitus

A metabolic disorder of <u>multiple aetiology</u> characterized by chronic hyperglycaemia with disturbances of <u>carbohydrate, fat and protein metabolism</u> resulting from <u>defects in insulin secretion, insulin action or both</u>

Types of diabetes

Type 1 (5-10%)   Type 2 (90 - 95%)

Secondary diabetes: The diabetes is not the main illness, a secondary condition that results because of the main illness e.g. cystic fibrosis, chronic pancreatitis, infections.

Pre-diabetes: Impaired glucose tolerance

at higher risk for developing type 2 diabetes. May remain undiagnosed for years; risk of complications same as for T2DM

Symptoms

Lots of urine &thirst &weight loss &infections

Biochemical tests

Random plasma glucose(Random BS >200 mg/dl (>11.1m mol/dl)

Fasting plasma glucose(FBS >126 mg/dl (>7 m mol/dl)

Oral glucose tolerance test – 2h glucose

(If < 7.8 mmol/L = normal GTT

If ≥ 7.8 mmol/L and < 11.1 mmol/L = Impaired GTT

If ≥ 11.1 mmol/L = provisional diagnosis of Diabetes

Hb A1C   •

Why is diabetes so important?

Cost & lots of complications like:

Cardiovascular(Diabetes accounts for more than 5% of the global deaths, which are mostly due to <u>CVD</u>).

<u>**blindness**</u> **& visual impairment**

Depression& Premature mortality

Feet amputations

responsible for over one third of end-stage <u>renal</u> disease

infections, sexual, psycho-sexual

Risk factors for Retinopathy in Saudi diabetic patients

Duration > 10 years.

Presence of nephropathy.

Older than 60 years.

Poor diabetes control.

Risk factors for Type 2 DM are complex including **obesity, genetic and life style factors**

physical inactivity, dietary imbalance and infections

1)obesity: **Contributes to the resistance to endogenous insulin.**

2) Genetic factors: may play a part in development of all types; autoimmune disease and viral infections may be risk factors in Type I DM.

3) Physiologic or emotional stress: causes prolonged elevation of stress hormone levels (cortisol, epinephrine, glucagon and growth hormone), which raises blood glucose levels

4) Pregnancy: causes weight gain and increases levels of estrogen and placental hormones, which antagonize insulin

5) Medications: that are known to antagonize the effects of insulin: thiazide diuretics, adrenal corticosteroids, oral contraceptives

Epidemiology of diabetes

Prevalence worldwide is increasing

Epidemiology of Diabetes in USA

Diabetes affects 25.8 million people of all ages

8.3% of the U.S. population

Major cause of heart disease and stroke

Seventh leading cause of death

اكثر نسب مرضى سكر في العالم في الهند

في دول الخليج اعلى نسبه في الامارات وتليها المملكه العربيه السعوديه

اجتهاد شخصي

REHAB MOSLEH

GOOD LUCK