

LEADING CAUSES OF DIABETES MELLITUS AMONG YOUTHS.

SEMINAR PRESENTATION

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**TO THE YOUTH DEPARTMENT
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Summary

Type 1 diabetes is a serious autoimmune disease in which the pancreas stops producing insulin—which is essential to getting energy from food. It affects people of all ages especially in teens and young adult. Is not related to diet or lifestyle. There's no way to prevent type 1 diabetes and—currently—there is no cure.

Type 2 diabetes is becoming an increasingly prevalent disorder among young persons by lifestyle factors leading to increased body weight. Genetic and familial factors, fetal environmental factors and lack of physical activity during childhood and adolescence lead to increasing levels of insulin resistance that appear to be crucial in the pathogenesis of type 2 diabetes in the young. Treatment includes lifestyle modification and the pharmacotherapeutic approaches utilized in adults with type 2 diabetes, with studies to date supporting the roles of insulin and metformin.

LEADING CAUSES OF DIABETES MELLITUS AMONG YOUTHS

Diabetes mellitus (DM), commonly known as diabetes, is a group of metabolic disorders characterized by high blood sugar levels over a prolonged period. Symptoms of high blood sugar include frequent urination, increased thirst, and increased hunger. If left untreated, diabetes can cause many complications or death. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, and damage to the eyes.

There are three main types of diabetes mellitus:

1. Type 1 DM results from the pancreas' failure to produce enough insulin due to loss of beta cells. This form was previously referred to as "insulin-dependent diabetes mellitus" (IDDM) or "juvenile diabetes". The cause is unknown.
2. Type 2 DM begins with insulin resistance, a condition in which cells fail to respond to insulin properly. As the disease progresses, a lack of insulin may also develop. This form was previously referred to as "non insulin-dependent diabetes mellitus" (NIDDM) or "adult-onset diabetes".
3. Gestational diabetes is the third main form, and occurs when pregnant women without a previous history of diabetes develop high blood sugar levels. Prevention and treatment involve maintaining a healthy diet, regular physical exercise, a normal body weight, and avoiding use of tobacco. Gestational diabetes usually resolves after the birth of the baby.

Insulin resistance in youths

1. The development of type 2 diabetes involves a loss of the balance between insulin sensitivity and secretion.
2. Obese children exhibit glucose intolerance, which is strongly associated with evidence of both insulin resistance and insulin secretion.
3. A number of studies have shown that black children have higher total fat and cholesterol intake, because they prefer greater sweetness in liquids, are physically less active, and spend more time watching television, and do not perceive themselves as heavy, and actually express a desire to be on the fat side

Causes of diabetes mellitus in youths

1. Type 1 diabetes mellitus is characterized by pancreas' failure to produce enough insulin due to loss of beta cells.
2. Type 1 diabetes can affect children or adults, but was traditionally termed "juvenile diabetes" because a majority of these diabetes cases were found in children.
3. Type 2 Type 2 DM is the most common type of diabetes mellitus is primarily due to lifestyle factors and genetics including obesity, lack of physical activity, poor diet, stress, and urbanization. Consumption of sugar-sweetened drinks in excess. The type of fats in the diet is also important, with saturated fat and trans fats increasing the risk and polyunsaturated and monounsaturated fat decreasing the risk. Eating lots of white rice, and other starches, also may increase the risk of diabetes.

Symptoms of diabetes mellitus in youths

Signs of type 1 diabetes in young adults tend to come on quickly. Especially for teens, One of the first early warning signs to look for is -:

1. Increased thirst. That's because high blood sugar levels cause the body to pull fluid from tissues—which leads to dehydration. Some other symptoms of diabetes in teens include:

2. Increased appetite

If your teenager's body isn't able to get the proper energy it needs from food he or she may feel more hungry than normal.

3. Unexpected weight loss

If your child is losing weight—especially when eating more—it could be a sign that his or her body isn't getting enough calories from their food.

Other diabetes symptoms in teenagers

What other warning signs should you be aware of?

1. Look for sudden vision changes;
2. Feeling drowsy or lethargic;
3. Experiencing heavy or labored breathing.

NOTE: Type 1 diabetes can be life-threatening, the earlier you catch it the better, so please see your doctor if you think your teenager is experiencing symptoms.

Treatment

Maintenance of reasonable body weight,

Pharmacological treatment.

Pharmacological treatment may include

1. Insulin (by injection or oral)
2. Metformin
3. Thiazolidinediones.

Prevention

1. There is no known preventive measure for type 1 diabetes

For Type 2, Diabetes

1. Increasing activity levels in children.

2. Maintaining a normal body weight,

3. Engaging in physical activity,

4. Eating a healthy diet. include maintaining a diet rich in whole grains and fiber, and choosing good fats, such as the polyunsaturated fats found in nuts, vegetable oils, and fish. Limiting sugary beverages and eating less red meat, Tobacco smoking is also associated with an increased risk of diabetes.

Management

Diabetes mellitus is a chronic disease, for which there is no known cure except in very specific situations.

1. Management concentrates on keeping blood sugar levels as close to normal, without causing low blood sugar. This can usually be accomplished with a healthy diet, exercise, weight loss, and use of appropriate medications (insulin in the case of type 1 diabetes).

2. Oral medications, as well as possibly insulin, in type 2 diabetes).

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