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DIABETES

Definition

Diabetes is a condition in which the body's capacity to create or respond to the hormone insulin is hampered, resulting in improper carbohydrate metabolism and high blood glucose levels. (Diabetul: definitie, tipuri si simptome, 2021)

Causes and risk factors

- Overweight
- Have the condition in your family tree
- Have prediabetes
- Have high blood pressure, high cholesterol or high triglycerides
- Gestational diabetes
- Age (Diabetul: definitie, tipuri si simptome, 2021)

Physiology

Type-1 diabetes: Type 1 diabetes is a dangerous disorder in which your blood glucose (sugar) level is too high due to a lack of insulin production by your body. This occurs when your body assaults the cells in your pancreas that create insulin, causing you to be unable to produce any. Insulin is required for our survival. It serves an important purpose. It enables glucose in our blood to enter our cells and provide energy to our bodies. Insulin is required for our survival. It serves an important purpose. It allows blood glucose to enter our cells and energise our bodies. (Diabetul: definitie, tipuri si simptome, 2021)

Type-2 diabetes: Our body still breaks down carbohydrate from food and drinks and converts it to glucose if you have type 2 diabetes. The pancreas subsequently releases insulin in response to this. However, because this insulin is unable to function correctly, your blood sugar levels continue to rise. More insulin is released as a result of this. For certain patients with type 2 diabetes, this can wear out their pancreas, causing their bodies to malfunction. (Pearson, 2021)

Prevention

Lifestyle: The life style pattern of the associated patient should be substituted with a healthier one - the eating habit must improve to control blood sugar levels.

Behavioural changes: As per this case study, we have a female aged 48 who is overweight, smokes daily and regularly, drinks alcohol, doesn't exercise at all, has blood pressure and has an unhealthy everyday diet.

She will need to change her diet, try drink less, quit smoking and introduce exercise in her life.



SPEAKER NOTES

Introduction

Diabetes is a long- life condition. Diabetes is also known as sugar disease and manifests itself when blood sugar (glucose) is above normal levels according to the NHS. In order to survive, the human body needs energy, energy that is taken from the conversion of glucose to the cellular level. When the glucose level is too high the pancreas cannot produce the necessary amount of insulin to perform the food-energy conversion in the cell and a large amount of glucose remains in the blood. The glucose left in the blood leads to diabetes. According to medical studies it is known that Diabetes as a disease is incurable but with the help of a balanced lifestyle and a proper diet diabetes can be controlled (Berridge et al., 2017)

Main information related with physiology

Type 2 diabetes is a complicated condition that is often diagnosed without worries about etiology. In a broader sense, we need to be better at detecting a mixture of well-defined multiple etiologies, such as monogenic diabetes, because this has substantial consequences for therapy and patient management. Type 2 diabetes, on the other hand, is a very heterogeneous polygenic. In general, the pancreas easily loses to produce the ability that it is remarkable for hormone secretion. Moreover, glucose does not accumulate in cells and, when this happens, can have a large impact on health. Type 2 diabetes can be associated with the onset of heart disease, nervous system damage and kidney damage. Also diabetes being the leading cause. for renal insufficiency, non-traumatic (Fagherazzi et al., 2019)

When the body stops producing insulin, type 1 diabetes occurs. Type 1 diabetes usually occurs when the immune system stops producing insulin by destroying pancreatic cells, so it is imperative that the patient take the dose of insulin needed daily to survive. The administration is made by injection. Type 1 diabetes is most common in children and young people, but it is not a rule, therefore, regardless of age, we can develop type 1 diabetes. (Diabetes: definition, types and symptoms, 2021)

During pregnancy, some women acquire gestational diabetes. This type of diabetes usually goes away once the baby is born. If you've experienced gestational diabetes, though, you're more likely to develop type 2 diabetes later in life. It's possible that diabetes diagnosed during pregnancy is actually type 2.

Monogenic diabetes, which is an inherited form of diabetes, and cystic fibrosis-related diabetes are two less prevalent forms. (Diabetes: definition, types and symptoms, 2021)

If you're 45 or older, have a family history of diabetes, or are overweight, you're more likely to acquire type 2 diabetes. Physical inactivity, race, and certain health issues like high blood pressure can all increase your risk of acquiring type 2 diabetes. If you have prediabetes or have gestational diabetes while pregnant, you're more likely to acquire type 2 diabetes. (Diabetes: definition, types and symptoms, 2021)

Found in case study with caused and risk factor

As per the provided case study, the patient is a woman who is facing the consequence of diabetes. In this, she is 48-year-old and with the diabetes the chance of atherosclerosis is higher with the smoking. the selected patient for the case study is gradually have high rate of smoking which can cause serious issue and she is over weight . With the diabetes, her diet plan and other associated action is inappropriate because she does not perform exercise which is important regulate and maintain the aspect of metabolism. Usually, she used to take chips and other deep fried food which is create more complication for the patient. She is also dealing with the high systolic pressure which is counted up to 180 mmHg. Moreover, the more critical behaviour which is identified from the case study is habit of smoking (Liccardo and et. al., 2019).

Some of the risk factor which is associated with the diabetes is :heart disease, stroke, kidney disease, eye problems ,dental disease, nerve damages ,foot problems

Prevention:

- ***Lifestyle:*** Carb as the counting is an important part of eating for the type 2 diabetes. Moreover, the dietitian is helpful to find out the figure in term of gram which show the carbohydrate to eat at each meal. In this, some of the lifestyle change are avoid smoking and used to take fruits, vegetable, whole grain, lean protein and healthy fats such as olive oil and nuts.
- ***Behavioural changes:*** In this, the proper diet routine and other essential approach which is take by eating and doing productive which is effective for the diabetic patient (Solomon and et. al., 2017).

CONCLUSION

As per the above discussion, this is well analysing that the condition associated with the diabetes can lead to create the major complication such as risk with the heart and other. Moreover, the proper lifestyle change is lead to taken in such a way which help to develop resilience and wellness.



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