Increasing incidence of diabetes warrants immediate control

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I know of a middle-aged gentleman who suffers from diabetes. He takes his diabetes medicine regularly, watches what he eats, exercises regularly and sees his doctor at periodic intervals. He remains healthy. I know of another gentleman also with diabetes, who does not adhere to his doctors recommendations, makes poor dietary choices, and takes his diabetes medication when he ‘feels like’. Recently, this gentleman was diagnosed with kidney disease, heart disease and peripheral neuropathy (nerve damage) resulting in loss of sensations in his feet.

What we have are two individuals with identical diagnosis but different outcomes. The message is simple – patients with diabetes can be effectively treated. The disease can be controlled and prevented with the use of medications and self care approaches such as dietary modifications and physically activity.

So, how common is diabetes? It is estimated that 15 to 20 % of GCC nationals suffer from diabetes. But many may not know that they have it. The disease rates continue to rise both in adults and children. The disease prevalence among Qatari children has doubled in the past 10 years.

In the US, the disease affects approximately 20 million people. Of this number, 6 million - about 15 percent – are not aware that they have it. The total costs of taking care of patients with diabetes are astronomical.

Complications from diabetes can be grave. Two out of three diabetics die from either stroke or heart disease. The overall risk of death is two times higher in diabetics than in those without diabetes. Additionally, diabetes increases the risk of other chronic conditions such as kidney and eye diseases. Under these circumstances it is vital that we make every effort to control this problem.

The precise causative mechanism of diabetes remains uncertain. However, both hereditary and environmental factors appear to contribute to it. Lifestyle choices play a significant role. Lack of routine physical activity, being overweight and poor nutrition habits are considered major contributors.

Understanding the disease
Glucose, which comes from the food we eat, is the principal source of energy for the cells in the body. Cells use glucose to perform many functions for optimum health. For this to happen, glucose must be transported to the interior of the cells. Insulin, a hormone produced by the pancreas - a gland behind the stomach - facilitates the transportation and entry of glucose into the cells.

If the body does not produce sufficient insulin or lacks the ability to use it properly, the level of glucose in the blood increases resulting in diabetes. Thus, in diabetes, there is a large amount of glucose in the blood, which is not being utilized. This excessive glucose is excreted in urine.

How is it diagnosed?
A proper evaluation involving history, examination and various laboratory tests are important. The symptoms of the disease include increased thirst, urination and hunger. Symptoms such as weakness and blurry vision can also occur. If untreated, diabetes can lead to retinopathy and blindness, kidney problems, stroke, heart disease and other problems. Neuropathy (damage to nerves) and non-healing sores are other complications.

Diabetes can be diagnosed through blood tests, including fasting blood-glucose test and what is commonly referred to as oral glucose tolerance test. Periodic visits to the physician are imperative to monitor the control of diabetes. Those at risk should be screened for the disease.
There are three types of diabetes: Type 1, type 2 and gestational. Type 1 is a condition in which the body does not produce an adequate amount of insulin. In this, the pancreas cells that produce insulin have been damaged. It is usually diagnosed at a young age.

Type 2 diabetes, more prevalent than type 1, is commonly diagnosed in later years of life. It is usually associated with obesity, lack of physical activity and a family history of diabetes. In this type, the body becomes resistant to insulin and can't utilize it properly. Eventually insulin resistance can lead to its deficiency.

Gestational diabetes, a transient form of diabetes, occurs in a small percentage of pregnant women. It develops late in pregnancy and usually disappears after the birth of the baby.

Pre-diabetes also merits a brief discussion. In pre-diabetes, the level of blood sugar is high, but not high enough to call it diabetes. This can, however, result in type 2 diabetes. But this condition can be eliminated by making healthy lifestyle choices, such as losing weight and engaging in routine physical activity.

The science of diabetes, its treatment and preventive strategies are fairly well understood. With recent advances in technology, pharmaceutics and knowledge of diabetes prevention, it is now possible to control and prevent diabetes effectively to reduce untimely death and complications.

Helpful web resources:

- Qatar Diabetes Association
- American Diabetes Association

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