Medications for Diabetes

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Abstract

The increase in the blood glucose level leads to the medical case referred as the ‘Diabetes’. There are many reasons for the a person to develop the diabetes that could be due to high intake of sugar in the their food supplements, or the malfunctioning of the insulin receptors responsible for the intake of glucose within the cell, or due to the insufficient production of insulin within an individual’s body which will surely hinder in the proper consumption of the glucose via the cellular metabolism.

Keywords: SGLT2 inhibitors • Metformin • Insulin

Using Insulin

People with type 1 diabetes and a few people with type 2 diabetes may have to inject or inhale insulin to stay their blood glucose levels from becoming too high. Various sorts of insulin are available, and most are grouped by how long their effect lasts. There are rapid, regular, intermediate, and long acting insulin. Some people will use a long acting insulin injection to take care of consistently low blood glucose levels. Some people may use short acting insulin or a mixture of insulin types. Whatever the type, an individual will usually check their blood sugar levels employing a finger stick.

This method of checking blood glucose levels involves employing a special, portable machine called a glucometer. A person with type I diabetes will then use the reading of their blood glucose level to work out what proportion insulin they have. Self-monitoring is that the only way an individual can determine their blood glucose levels. Assuming the extent from any physical symptoms that occur could also be dangerous unless an individual suspects extremely low glucose and thinks they have a rapid dose of glucose.

Other Medications

• Metformin: For type 2 diabetes, a doctor may prescribe metformin in pill or liquid form. It contributes to lowering blood sugar making insulin more effective. It can also help in weight loss. Having a healthy weight can reduce the impact of diabetes. As well as diabetes, an individual can also produce other health risks, and that they may have medication to regulate these. A doctor will advise the individual about their needs.

• SGLT2 inhibitors and GLP1 receptor agonists In 2018, new guidelines also recommended prescribing additional drugs for people with: atherosclerotic cardiovascular disease chronic kidney disease. These are sodium-glucose cotransporter 2 (SGLT2)
inhibitors or glucagon-like peptide1 (GLP1) receptor agonists.

- GLP1 receptor agonists work by increasing the quantity of insulin the body produces and decreasing the quantity of glucose that enters the bloodstream. It is an injectable drug. People may use it with metformin or alone. Side effects include gastrointestinal problems, like nausea and a loss of appetite.

- SLGT2 inhibitors are a new type of drug for lowering blood glucose levels. They work separately from insulin, and that they could also be useful for people that aren’t able to start using insulin. People can take them by mouth. Side effects include a better risk of urinary and genital infections and ketoacidosis.

However, we are also guarded by natural decomposers for the glucose metabolism in our intestinal bacteria such as the E. coli. One of the paper entitled as ‘The Not so Sweet Side of Added Sugar’ recently published in journal of Genetics and Genomes discuss how a intestinal bacteria plays a major role in the consumption of the dietary sugars within an C. elegans taken as host for their practical activities. They have discussed in their commentary that the altering the dietary sugar supplement of the E. coli have a negative impact on the immune system of the host organism that is C. elegans.

**Conclusion**

Diabetes is a life-changing condition that requires careful blood sugar management and a healthy lifestyle for a person to be able to manage it correctly. There are several differing types of the disease.

Type I occurs when the body does not produce insulin. Type 2 happens when excess consumption of high-sugar foods flood the blood supply with glucose and reduce the assembly and effectiveness of insulin. People can take supplementary insulin to manage the condition and improve glucose absorption. If a person has prediabetes, they can reduce the risk of full diabetes through regular exercise and a balanced, low-sugar diet. The complications of diabetes can be severe, including kidney failure and stroke, so managing the condition is vital.

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