OPEN ACCESS Freely available online

Journal of Pharmaceutical Care & Health Systems

Commentary

Glimepiride's Role in the Treatment of Diabetes

Osman khan*

Department of Pharmacy, University of California, California, USA

DESCRIPTION

Diabetes is a long-lasting disease that happens when your blood glucose increses, which is also known as blood sugar, is too high. Blood glucose is the chief source of energy, and that comes from the food you consume. Insulin, a hormone secreted by the pancreas, helps glucose from food get into your cells, which is used for energy. Sometimes your body does not secrete enough insulin or doesn't use insulin well. Glucose then stays in your plasma and doesn't reach your blood cells. This leads to an increase in the content of glucose in the blood. This condition is known as diabetes. There are two types of diabetes: Type 1 diabetes and Type 2 diabetes.

Role of Glimepiride

Type 1 diabetes is mainly caused by the excess glucose content in your body. During this process, the immune system of your body, which normally fights infection, destroys and attacks the cells in the pancreas. As a result, your pancreas breaks down making insulin. In Type 2 diabetes, your body doesn't consume the insulin well. This results in an increase in the glucose content in your body. People who are suffering with diabetes have the following symptoms: Increased thirst and urination, increased hunger, feeling tired, blurred vision, numbness or tingling in the feet or hands, weight loss.

The medications used to control diabetes are Glimepiride (Amaryl), Insulin glulisine, Glipizide (Glucotrol), and Glyburide (DiaBeta, Glynase). This helps in stimulating the release of insulin. Glimepiride is used to treat type 2 diabetes and contains the active ingredient glimepiride and the following inactive ingredients: lactose (hydrous), sodium starch glycolate, povidone, microcrystalline cellulose, and magnesium stearate. It was mainly prescribed in combination with metformin for effective blood glucose control. Insulin glulisine is used to treat type 1 diabetes and contains insulin glulisine, metcresol, polysorbate, sodium chloride, and water for injection. Because it is acidic in nature, glimepiride exhibits very poor solubility at 37 °C. It shows the pharmaceutical effect within 2-3 hours of administration. Glimepiride has a dissolution time of 15–30 minutes and an efficacy of 77.21 percent. Glimepiride reduces blood sugar by initiating the pancreas to secrete insulin, which is a natural substance that is needed to break down sugar in the body and aids the body in using insulin efficiently. Thus, it helps to lower the glucose content in the blood. In order to get an effective result, one should take the tablet before or during the first meal. A glucose tolerance test, a random blood sugar test, a glucose screening test, and an A1C test can all be used to diagnose diabetes. One can prevent diabetes through lifestyle changes such as losing a small amount of weight and getting more physically active.

CONCLUSION

By choosing whole grains and whole grain products over refined grains and other extremely processed carbohydrates, a person with diabetes should avoid sugary drinks and choose water, tea, or coffee. Instead of eating meat, choose nuts, beans, whole grains, poultry, or fish. Taking food containing more fibre content can reduce the glucose content in the blood. The current gold standard for diabetes screening is the glycohemoglobin test.

Correspondence to: Osman Khan, Department of Pharmacy, University of California, California, USA, E-mail: khan123@gmail.com

Received: 08-Jul-2022, Manuscript No. JPCHS-22-17350; **Editor assigned:** 13- Jul -2022, PreQC No. JPCHS-22-17350 (PQ); **Reviewed:** 27-Jul-2022, QC No. JPCHS-22-17350; **Revised:** 02- Aug -2022, Manuscript No. JPCHS-22-17350 (R); **Published:** 09-Aug-2022, DOI: 10.35248/2376-0419.22.9.252

Citation: Khan O (2022) Glimepiride's Role in the Treatment of Diabetes. J Pharma Care Health Sys. 9: 252.