



Management of Insulin Glulisine and its Adverse Effects in Allergic Situations

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DESCRIPTION

Insulin glulisine is a type of insulin that is used to treat diabetes mellitus, a condition in which the body does not produce enough or use insulin properly. Insulin is hormones that helps the body use glucose (sugar) from food for energy or store it for future use. Insulin glulisine is fast-acting insulin that works quickly to lower blood sugar levels after meals. It can be used alone or in combination with other types of insulin or oral medications for diabetes. Insulin glulisine is similar to human insulin, but it has been modified to have a faster onset and shorter duration of action. This makes it suitable for injecting before meals or snacks, or adjusting the dose according to blood sugar levels. Insulin glulisine can also be used in an insulin pump, which delivers a continuous infusion of insulin under the skin.

Insulin glulisine is available under the brand name Apidra, and it comes in vials, cartridges, or prefilled pens. The dose and timing of insulin glulisine depend on several factors, such as the type and severity of diabetes, blood sugar levels, diet, exercise, and other medications. The dose may need to be adjusted over time based on the individual's response and needs. Insulin glulisine can help improve glycemic control in people with type 1 or type 2 diabetes. Glycemic control refers to how well blood sugar levels are maintained within a target range. Poor glycemic control can lead to serious complications of diabetes, such as heart disease, kidney disease, nerve damage, eye problems, and infections. Insulin glulisine can help prevent or delay these complications by lowering blood sugar levels after meals and preventing spikes and drops in blood sugar.

Insulin glulisine has been shown to be safe and effective in clinical trials involving adults and children with type 1 or type 2 diabetes. In this study, insulin glulisine was compared with Regular Human Insulin (RHI) in combination with Neutral Protamine Hagedorn (NPH) insulin (a type of intermediate-acting insulin) in 876 patients with type 2 diabetes who were already relatively well controlled on insulin alone or insulin plus oral medications. The results showed that insulin glulisine provided a slightly greater reduction in HbA1c (a measure of

average blood sugar levels over 2 to 3 months) than RHI (-0.46% vs -0.30%) after 26 weeks of treatment. Insulin glulisine also resulted in lower post-breakfast and post-dinner blood glucose levels than RHI. There were no significant differences between the two groups in terms of hypoglycemia (low blood sugar), weight gain, or insulin dose. Like any medication, insulin glulisine may cause side effects in some people. The most common side effect of insulin glulisine is hypoglycemia, which can cause symptoms such as headache, dizziness, sweating, shakiness, hunger, confusion, irritability, or weakness. Hypoglycemia can be treated by eating or drinking something that contains sugar, such as juice, candy, or glucose tablets. Severe hypoglycemia may require the help of another person or medical attention. To prevent hypoglycemia, it is important to monitor blood sugar levels regularly, follow a balanced diet and exercise plan, and adjust the dose of insulin glulisine as needed.

Other possible side effects of insulin glulisine include allergic reactions (such as rash, itching, swelling, or trouble breathing), injection site reactions (such as redness, pain, swelling, or itching), weight gain, fluid retention (edema), low potassium levels (hypokalemia), and lipodystrophy (changes in the fat tissue under the skin). Some of these side effects may be more common or severe if insulin glulisine is used with other medications that affect blood sugar levels or fluid balance. Insulin glulisine is not suitable for everyone. It should not be used by people who are allergic to it or have an episode of hypoglycemia. It should be used with caution by people who have liver or kidney problems, heart failure, or diabetic ketoacidosis (a serious condition caused by high levels of ketones in the blood).

CONCLUSION

It works quickly to lower blood sugar levels after meals and prevent spikes and drops in blood sugar. It can be used alone or in combination with other types of insulin or oral medications for diabetes. It has been shown to be safe and effective in clinical trials involving adults and children with diabetes. However, it may also cause side effects in some people, such as hypoglycemia,

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allergic reactions, or weight gain. Therefore, it is important to follow the doctor's instructions on how to use insulin glulisine, monitor blood sugar levels regularly, and report any problems or

concerns to the doctor. It should also be used with caution by pregnant or breastfeeding women, as it may affect the baby's blood sugar levels.