

Autoimmune Hypoglycemia Due to Anti-Insulin Antibodies About 7 Cases

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Abstract:

Introduction:

Hypoglycemia is a frequent reason for consultation among diabetic patients. The most common causes of hypoglycemia are errors in insulin dosage, delayed meals, lipodystrophy, etc.

However, in rare cases, hypoglycemia is of autoimmune origin, and is associated with the presence of anti-insulin or anti-insulin receptor antibodies.

Materials and methods:

We report a series of 7 cases of diabetic patients presenting with autoimmune hypoglycemia.

Results:

Our study included 6 women and one man, with ages ranging from 25 to 58 years, all patients were diabetic with duration of diabetes ranging from 4 years to 33 years, 5 patients had type 1 diabetes, LADA diabetes, and type 2 diabetes. All patients were on mixed human insulin. The autoimmune origin of the hypoglycemia was suspected by their nocturnal and late postprandial nature, and was confirmed by positive anti insulin antibodies, with antibody levels ranging from 50IU/ml to 06IU/ml. Management consisted of a course of corticosteroids, followed by analogue insulin. The evolution was favorable.

Discussion:

Human insulin remains an immunogenic product that induces the secretion of specific antibodies, particularly in autoimmune patients.

The patient's hypoglycemia can easily be explained by the presence of anti-insulin antibodies induced by fast-acting human insulin. These antibodies bind exogenous insulin, then release it anarchically, inducing hypoglycemia.

Conclusion:

Glycemic instability is common in insulin-treated patients and disabling due to repeated hypoglycemia, often explained by dietary errors, insulin overdose or excessive physical effort. Rarely implicated by autoimmune etiology, it is linked to the presence in the patient's serum of anti- -insulin or anti-insulin receptor antibodies.

Keywords:

Hypoglycemia, autoimmune etiology, diabetic patients.