Persistent Hypoglycemia in Children: Hyperinsulinemia

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Abstract

Congenital hyperinsulinemia occurs due to inappropriate insulin secretion from beta cells of the pancreas. It is the most common cause of resistant and recurrent hypoglycemia in neonates and infants and the treatment is very difficult. Although the incidence is reported as 1/50000, it is seen more frequently in consanguineous countries. Patients may present with lethargy, nourishment, irritability and seizures. If it is not treated, severe hypoglycemia may result in severe neurological damage. High glucose requirement in the diagnosis of congenital hyperinsulinism, detectable insulin level and ketone negativity are the key findings during hypoglysemia. Approximately 45-55% of the patients have an underlying genetic etiology. The most common mutations are ABCC8, KCNJ11, GLUD1, HADH, GCK, SLC16A1. In the treatment of drugs such as diazoxide, octreotide, nifedipine may be used, while some patients may require surgical treatment.

Here, the aim of this study was to evaluate the clinical, genetic and therapeutic responses of hyperinsulinemia patients.

Result:

Hyperinsulinemia is more common in countries such as our country where the rate of consanguineous marriage is high. Early detection and treatment of hypoglycemia is very important for the prevention of neurological sequelae. Here, we wanted to draw attention to this group of diseases that are quite difficult to manage.