The program at Hamilton Diabetes and Endocrinology Center (HDEC), followed a structure similar to that of the nationwide IBT program. It begins with a nutritional assessment and a personalized lifestyle intervention plan. The program includes 20 visits over a 12-month period. At the six-month point mark, we aim to achieve a target weight loss of 6.6 lbs. A thorough literature review revealed limited data on the outcomes of the program. The purpose of our study is to present data which has shown effectiveness of this program in the rural setting.

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A 2-year-old Girl with a Congenital Portosystemic Shunt and Hypoglycemia Due to Secondary Hyperinsulinism Treated with Uncooked Cornstarch
Timothy Foster, MD and Angelina Bernier, MD

Background: Hepatic portosystemic shunts (Abernethy malformation) are rare congenital malformations in children, which result in direct connections of splanchnic venous drainage to systemic circulation, bypassing hepatic uptake and metabolism. Congenital portosystemic shunts (CPSS) can also rarely lead to secondary hyperinsulinism and hypoglycemia. We describe a case of a 2-year-old girl with a CPSS presenting with hypoglycemia due to reactive hyperinsulinism successfully treated with uncooked cornstarch.

Clinical Case: A 2-year-old girl presents for evaluation of altered mental status and hypoglycemia. Three months earlier she was treated for Lemierre syndrome and found to have a CPSS (severely hypoplastic portal vein with direct drainage of splanchnic vasculature into the IVC) with hyperammonemia treated with lactulose and rifaximin. This admission, she presented with lethargy and altered mental status as she was difficult to arouse. EMS detected a glucose of 19 mg/dl and treated her with a bolus of 25% dextrose fluids. The day before, she had eaten a typical dinner of cookies and mashed potatoes without concern. On admission, she had no elevation in urine ketones and her blood gas measurements, alcohol, and ammonia levels were within normal limits, as such a diagnosis of secondary hyperinsulinism was suspected. A 3-hour OGTT with 2 g/kg glucose was performed after 2 days of stable oral intake and normoglycemia. Her fasting glucose was 74 mg/dl with a baseline insulin of 9.3 mcIU/ml. Within 1 hour, her glucose...
rose to 223 mg/dl with an insulin of 247.14 mcIU/ml. At 3 hours (2-hour levels not obtained) her glucose dropped to 67 mg/dl and with an insulin of 24.83 mcIU/ml. Thirty minutes after completion of the OGTT (3.5 hours from glucose load) she became lethargic with a glucose of 45 mg/dl confirming suspicion for secondary hyperinsulinism induced hypoglycemia. Education on glucose monitoring, hypoglycemia management and dietary changes were made to include meals with sufficient fat and protein to help reduce postprandial hyperglycemia. Additionally, uncooked cornstarch 1.4 g/kg was started to provide an overnight source of carbohydrates while avoiding rapid absorption. At 3 months her mother reported no hypoglycemic episodes with fasting glucose levels 80-100 mg/dl.

**Clinical Lessons:** Hypoglycemia can occur in CPSS patients due to secondary hyperinsulinism. The vascular malformation causes postprandial hyperglycemia, from the absence of first-pass uptake of glucose by the liver, which leads to insulin secretion. However, insulin similarly bypasses hepatic uptake and degradation after release (normally clears up to 80% of insulin), and the systemic circulation and peripheral tissues are exposed to elevated levels leading to hypoglycemia. While surgical correction provides definitive treatment, uncooked cornstarch can maintain euglycemia both by decreasing postprandial hyperglycemia and by providing a slowly absorbed source of carbohydrate.

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