Abstract citation ID: bvac150.747

Diabetes & Glucose Metabolism

PSAT277

Glucocorticoid Therapy for Management of Hypoglycemia in the context of Non-Islet Cell Tumor-Induced Hypoglycemia

Rahul Agarwal, Susel Rodriguez Ortega, and Juan Vasquez Mendez

Background: Non-islet cell tumor-induced hypoglycemia (NICTH) is a rare paraneoplastic syndrome which can cause recurrent hypoglycemia. There is no clear standard

of care for management of hypoglycemia. Often, these patients have high morbidity and therefore surgical tumor resection is not always possible. Clinical case: This is the case of a 69 year-old male presenting with altered mental status in the context of hypoglycemia without clear etiology with an initial serum glucose level of 32 mg/dL (normal range 60-100 mg/dL) which quickly corrected after administration of intravenous glucose. He was found to have a large bowel obstruction with CT abdomen revealing an underlying neoplasm. Biopsy of suspected lesion on colonoscopy revealed colorectal adenocarcinoma. Repeated episodes of hypoglycemia complicated by seizures required inpatient management. Workup included serum insulin level which resulted in suppressed level (<1. 0 uU/mL, normal range 1.9-23. 0 uU/mL), low c-peptide level (0.1 ng/mL, normal range 1.1-4.4 ng/mL), low beta hydroxybutyrate level (0. 07 mmol/L, normal level <0.3 mmol/L), cortisol level of 43.7 mcg/dL, undetectable insulin like growth factor-1 (IGF-1) level (<10 ng/mL, normal range 59-230 ng/mL) and low insulin like growth factor-2 (IGF-2) level (66 ng/mL, normal range 333 - 967 ng/mL). IGF2: IGF1 ratio was 66 (ratio >10 is indicative for diagnosis of non-islet cell tumor hypoglycemia). Due to extremely poor oral intake and recurrent episodes of hypoglycemia despite continuous dextrose infusion, the patient was started on 20 mg prednisone daily. Eventually, 40 mg of intravenous methylprednisolone in addition to dextrose infusion was needed as maintenance therapy effectively preventing hypoglycemia. Given his poor functional status, the surgical and oncology team decided he was no longer a surgical or chemotherapy candidate. Eventually, palliative medicine was consulted and the patient was transitioned to comfort care with a plan for outpatient hospice. **Conclusion:** NICTH should be suspected in any patient with hypoglycemia without clear etiology, especially if there are suggestions to NICTH such as known malignancy or newly diagnosed mass. Once NICTH is identified and a primary tumor is found, complete tumor resection represents ideal management, however, not always attainable. In such cases, dextrose infusion might be insufficient to prevent hypoglycemia and is not always the preferred option given the required long-term venous access. In these circumstances, early high dose glucocorticoids are safe and appear to successfully prevent hypoglycemic events.

Presentation: Saturday, June 11, 2022 1:00 p.m. - 3:00 p.m.