

Introduction: Nesidioblastosis, a hyperproliferation of beta cells in the pancreas, is a rare condition that can occur following gastric bypass surgery. Differentiating nesidioblastosis from insulinomas can be challenging given the rarity of this condition. This study seeks to 1) analyze two cases of hyperinsulinemic hypoglycemia following bariatric surgery and 2) consider both insulinoma and nesidioblastosis as possible etiologies.

Methods: A retrospective chart review of patients with a history of gastric bypass surgery and postoperative hypoglycemia presenting to our Rare Cancer Program between 2024-2025 was performed. Patient histories, hospital courses, lab values, and follow-up outcomes were compared.

Results: Case 1 is a 62-year-old female with a history of gastric bypass presenting with hypoglycemia (60s-80s), nausea/vomiting after meals, and weight gain 5 years after surgery. Imaging did not reveal any pancreatic lesions. She was subsequently diagnosed with an insulinoma after a calcium stimulation test with hepatic vein sampling. The patient underwent a distal pancreatectomy with subsequent resolution of her hypoglycemic episodes. Surgical pathology, however, only revealed diffuse islet cell hyperplasia. Case 2 is a 44-year-old female with a history of gastric bypass presenting with profound hypoglycemia (10s-50s) associated with pseudoseizures and nausea/vomiting 3 years after surgery. She required admission to the ICU for blood glucose control. Imaging did not reveal any pancreatic lesions. A calcium stimulation test was not performed. She was managed medically with slow improvement in glucose control. Case 3 is a 62-year-old female with a documented history of gastric bypass surgery complicated by hypoglycemia that was unable to be managed medically. She was diagnosed with nesidioblastosis and subsequently underwent a near total pancreatectomy and bypass reversal with improvement of symptoms.

Conclusion: Our three patients had a similar history of gastric bypass surgery and post operative symptoms of hypoglycemia. Two patients were treated surgically while the other was managed medically, with apparent improvement of symptoms in all three cases. It is important to consider both insulinoma and nesidioblastosis when evaluating these patients for hyperinsulinemic hypoglycemia following gastric bypass surgery.