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Introduction

Insulinoma is a functional neuroendocrine tumor which occur predominantly in the pancreas. The common clinical manifestation of an insulinoma is fasting hypoglycemia with neuroglycopenic and sympathoadrenal (autonomic) symptoms. Although insulinoma typically causes fasting hypoglycemia, postprandial hypoglycemia occasionally reported in this patients. We report a rare case of insulinoma who admitted to outpatient clinic with postprandial hypoglycemia.

Case presentation

A 31-year-old woman presented with postprandial hypoglycemia. Capillary blood glucose levels were found 25 and 27 mg /dL during typical hypoglycemic symptoms such as blurred vision, palpitations, weakness. These episodes occurred about 2 hours after eating and eliminated with sugary foods. The symptoms of hypoglycemia were decreased with diet modification and increase in meal frequency. After 6 months, hypoglycemic symptoms reappeared by exercise and delayed meals. Physical examination was normal except hepatomegaly. Blood samples were taken after an overnight fast and serum blood glucose 91 mg/dl, insulin 5.64 uU/ml, cortisol 19.3 µg/dl, and c-peptid:1.14 ng/ml. Hb A1C, thyroid function tests, IGF-1, insulin antibodies, liver function tests and renal function tests were in normal range. Prolonged- 72 hours- fasting test was performed. After 56 hours, inappropriately high serum insulin concentrations was showed during hypoglycemia. Endoscopic ultrasound showed 9,8 mm hypoechoic lesion in the head of the pancreas (Figure 1). Present findings suggest the presence of insulinoma. Operation was planned but not yet carried out because she refused.

Discussion

It is necessary for the diagnosis of insulinoma that inappropriately high serum insulin concentrations during a spontaneous or induced episode of hypoglycemia. After diagnosis, imaging techniques are then used to localize the tumor.

The sensitivity of endoscopic ultrasound for the detection of insulinoma ranged from 82 to 85 percent. (1,2) Fasting hypoglycemia is the common clinical manifestation of insulinoma. However, postprandial hypoglycemia may be a feature or even the sole manifestation of insulinoma, in a retrospective review of 237 patients with surgically confirmed insulinoma which 6 percent reported only postprandial symptoms(3).

Conclusion

It is important to consider insulinoma as a cause of postprandial hypoglycemia.



Figure 1. Endoscopic ultrasound image of the hypoechoic lesion in the head of the pancreas

References

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