Insulinoma misdiagnosed as alcohol induced hypoglycaemia

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Case History

- A 48 years old male presented with an acute episode of dizziness, weakness, diaphoresis, palpitations, and shakiness.
- Hypoglycaemia was confirmed with a capillary blood glucose (CBG) of 1.6 mmol/L.
- His symptoms resolved on treatment with Hypostop gel and 10% dextrose.
- He had an otherwise unremarkable physical examination.
- In view of his history of consumption of a bottle of vodka daily a diagnosis of alcohol induced hypoglycaemia was made on discharge.

Further Management

- Whipple’s triad was positive.
- Endogenous hyperinsulinemic hypoglycaemia was suspected.
- Insulin level 55 pmol/L (reference range 12-150), C-peptide level 850 pmol/L (reference range 350-1800), Betahydroxybutyrate<100 umol/L, venous blood glucose (VBG) 2.0 mmol/L; insulin antibodies and sulphonylureas screen were negative.
- Diazoxide and continuous dextrose infusion were initiated as he had recurrent hypoglycaemic episodes with seizures.
- CT abdomen revealed left adrenal incidentaloma which proved non-functional.
- MRI pancreas and Octreotide scan were normal.
- Endoscopic ultrasound suggested 11X13 mm hypoechoic mass in the pancreatic head which had a differential of insulinoma or an inflammatory lesion.
- To obtain a more definitive evidence of insulinoma an intra-arterial calcium stimulation test was performed which revealed positive rises in the hepatic vein insulin when gastroduodenal and superior mesenteric arteries (supplying the head of pancreas) were injected.
- Although a Redo-endoscopic ultrasound with FNA was non-diagnostic; a repeat MRI pancreas revealed a 10mm lesion in the uncinate process. Enucleation of the tumour with occlusion of small vascular feeding branches was successful.
- The frozen section sample confirmed well differentiation neuroendocrine tumour.
- The patient was discharged in good health with safe glucose levels.

Conclusion

In view of its elusive and deceptive nature, insulinoma can pose a diagnostic challenge even to an experienced clinician. Accurate biochemical diagnosis and precise preoperative anatomic localization of insulinoma are highly desirable for effective and safe surgery.