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Insulinoma: A Rare Tumour - Case Report from a Teritiary Care Centre.

Dr Anantha Padmanabhan, Dr Ganesh H,
Junior resident general medicine,ajims-mangalore,
Professor-department of endocrinology, ajims- mangalore

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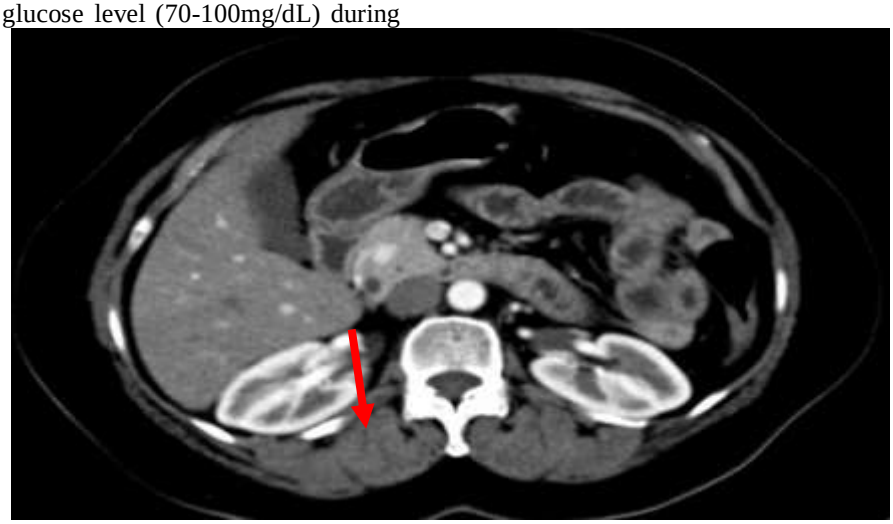
I. INTRODUCTION:

Endocrine tumors of the pancreas are rare tumors seen in clinical practice of which insulinoma is the commonest functional tumor. The annual incidence of insulinoma is about 4 per million patient-yr [1]. Insulinoma is commonly seen in the age group of 30-60years with more than half seen in women. Although majority of insulinomas are seen in the pancreas, there are reports on extrapancreatic insulinomas especially in the duodenum, ileum, lung, cervix etc. Elevated levels of insulin and C peptide in the presence of hypoglycemia are diagnostic.

II. CASE REPORT

A 56Y old female hailing from Kasaragod presented to us with complaints of 8 months history of early morning dizziness and heaviness of head. In the last 8 months she had multiple consultations and was always advised dietary changes but her symptoms never relieved. Patient also had early morning confusions upon getting up from sleep which used to subside after a cup of coffee or breakfast. Laboratory investigations were unremarkable except for low fasting blood sugars. Her past history was significant for persistent low-normal blood glucose level (70-100mg/dL) during her routine health checkup. In the presence of neuroglycopenic symptoms and low blood sugar levels(46mg/dl), C peptide was asked which was 2.18 ng/ml(0.5-2.7 ng/ml) and her insulin level was high 19.55mcIU/ml(<5mcIU/ml).Other endocrine blood workup including cortisol7.79 mcg/dl(5-15) and thyroid function 1.02IU/ml(0.30-5) were within normal limits. Contrast CT scan (Arterial phase CT) of the abdomen was done which showed intensely enhancing lesion in thehead of the pancreas suggestive of pancreatic endocrine neoplasm. In view of hypoglycemic status- the possibility of insulinoma was considered. Patient was admitted for insulinoma excision. Laparoscopic insulinoma excision was tried under epidural/ general anesthesia. Since it was difficult to localize the procedure was converted to open surgery and ultrasound assisted tumor excision was done. Tumor along with its capsule was removed which was near the superior mesenteric vein, measuring1.5*1 cm in size. Following excision of the tumor histopathological evaluation showed features consistent with insulinoma. Postoperatively her blood sugars were within normal range. During further follow-up, patient claims to be better and asymptomatic.



Contrast CT Abdomen showing an intensely enhancing lesion in the head of the pancreas.

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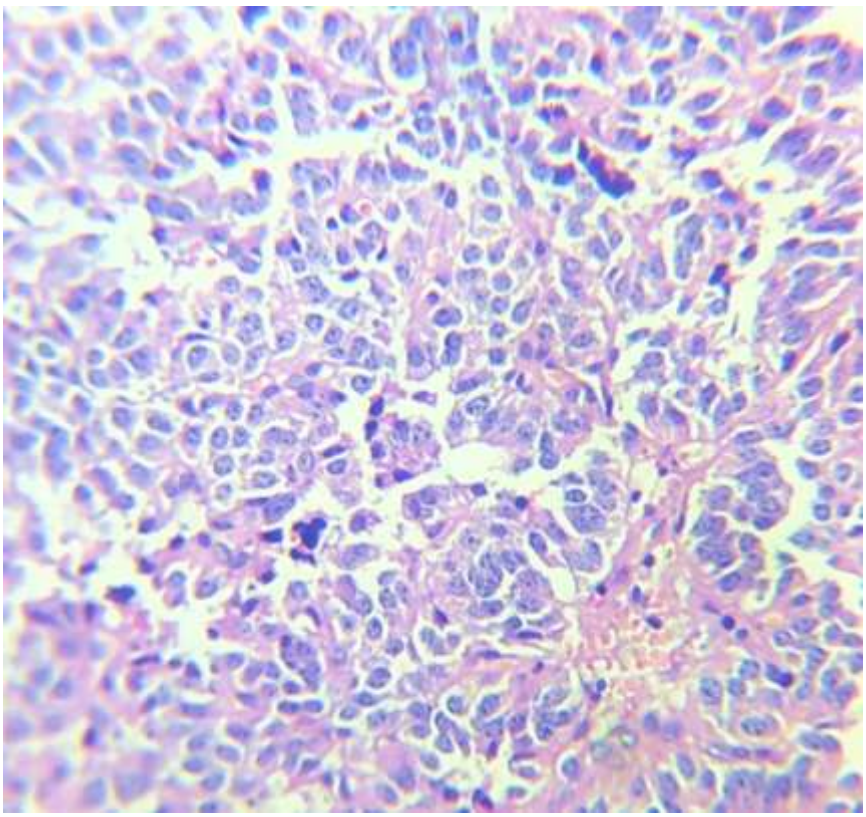

Histopathology showing tumor cells arranged in pseudorosette and nested pattern. Tumor cells are round, mildly pleomorphic with salt and pepper chromatin and abundant eosinophilic cytoplasm.

III. DISCUSSION

Hypoglycemia is a common medical emergency seen in clinical practice.Insulinomas are rare endocrine tumours of the pancreas, diagnosing of which is a challenge as it can present with neuropsychiatric manifestations. Insulinoma is diagnosed with insulin concentrations of at least 3 micro/ml, C-peptide concentrations of at least 0.3 ng/ml and fasting glucose concentrations are below 55 mg/dl without detectable oral hypoglycemic agents levels and no circulating insulin antibodies[2]. After confirmation of the diagnosis by clinical and biochemical investigations imaging modalities are used to localize the tumor. In our patient CT scan of the abdomen was done .Portal vein sampling and intra arterial stimulation of insulin secretion with calcium is a useful technique to detect almost all insulinomas but they are invasive[3].The treatment of choice for insulinoma is surgical resection through enucleation or segmental resection. The target is to remove the tumor while preserving as much as normal pancreas. Surgery may be curative in 75% to 98% of patients [4]. For patients who are not candidates for surgical resection, medical treatment may be used (eg: Diazoxide and Octreotide)[5].

IV. CONCLUSION

Clinical manifestations of endocrine tumours especially Insulinomas vary from patient to patient. High index of suspicion and proper biochemical and radiological investigations are needed for the diagnosis of insulinoma. The possibility of genetic causes and MEN-1 needs to be ruled out especially in younger patients. Majority of the patients become euglycemic after surgery which is highly rewarding**.**

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