

AN AGGRESSIVE MALIGNANT INSULINOMA: A CASE REPORT

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Introduction

Insulinomas are rare pancreatic islet cell tumours with an incidence of four cases per million per year. About 10% of all insulinomas are malignant. We here examined an insulinoma with aggressive driving in a young male patient with severe hypoglycaemia in the emergency room.

Case

34-year-old male patient was admitted to the emergency department with the blurring of consciousness. Blood glucose was 19 mg/dL, consciousness tends to sleep, non-cooperative and disoriented. Continuous dextrose infusion was required and the patient's laboratory tests results: Aspartate aminotransferase (AST) 132 U/L, alanine aminotransferase (ALT) 225 U/L, gamma glutamyltransferase (GGT) 504 U/L, alkaline phosphatase (ALP) 315 U/L, albumin 3.7 g/dl, total bilirubin 3.3 µg/dL, direct bilirubin 1.9 µg/dL, respectively. When the dextrose infusion interrupted, the blood glucose was 32 mg/dl whereas insulin level was 110 µIU/mL (N = 0.1-29.1 µIU/mL) and C-peptide level was 5.6 ng/ml (N = 0.9-4.3) respectively. Serum chromogranin A level was 158 ng/L (N: 27-94). Magnetic resonance imaging (MRI) revealed a mass in the pancreatic uncinata process level approximately 40x41mm in size. Multiple nodules in different sizes were observed in the left and right lobe of the liver. Biopsy made from fine needle aspiration in pancreatic mass was consistent with neuroendocrine tumors. Tru-cut biopsy made from liver lesions revealed the tumor infiltration. In immunohistochemical studies of tumor, synaptophysin and chromogranin were positive diffuse, KI 67: 7%, CK 7 (+) (weak), CK 20 (-), respectively. Somatostatin receptor type 2 activity in all the liver lobes, multiple lymph nodes and right third rib was detected in Gallium-68 positron emission tomography. Metastatic malignant insulinoma was diagnosed with existing findings. In-operable patient, while local and systemic treatment was planning, died because of liver failure.

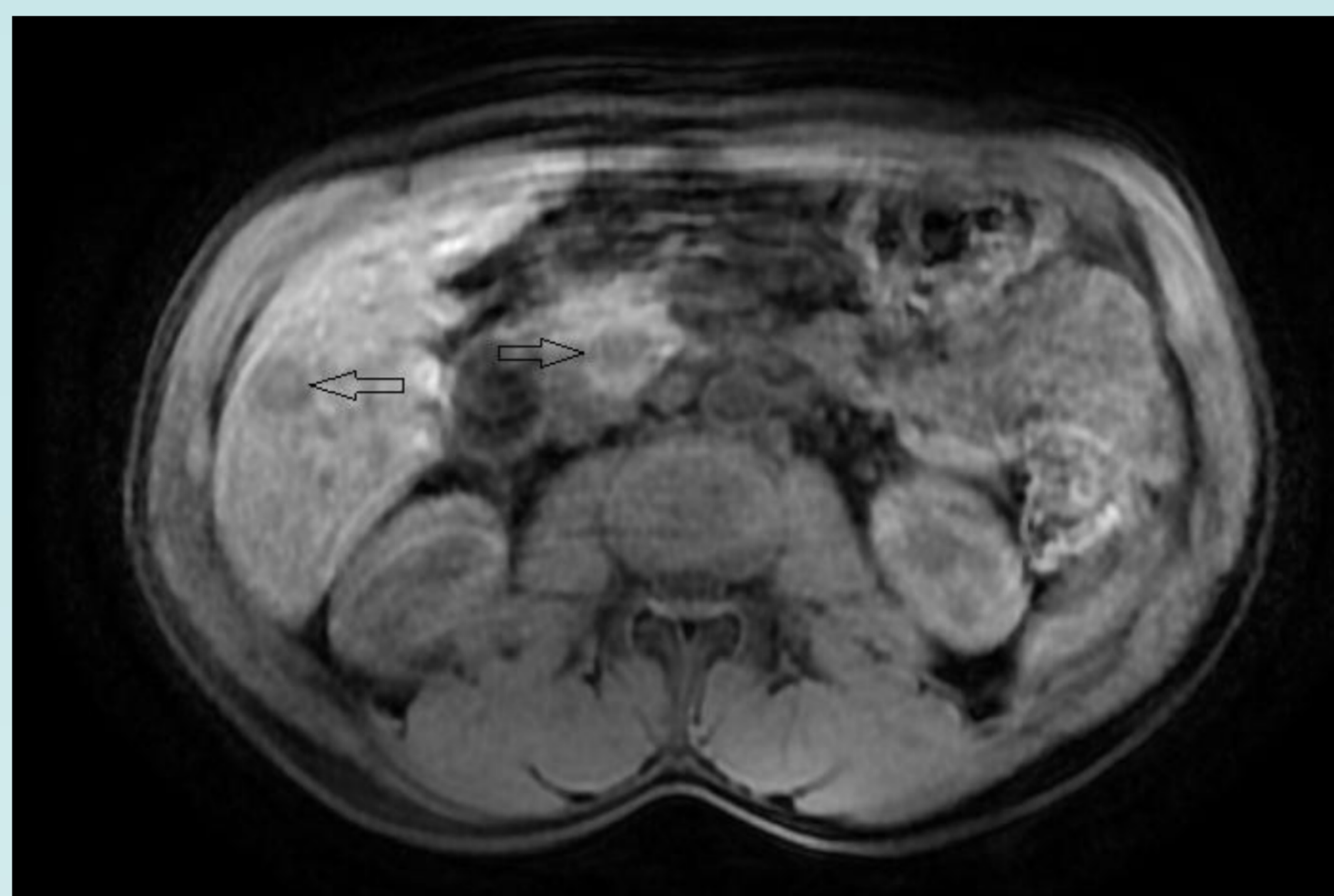


Figure 1. Pancreatic mass and its metastasis to liver

Conclusions:

In the literature a small number of malignant insulinoma patients were treated successfully with different local and systemic treatment. However, we did not have a chance to have local and systemic treatment since the patient died within a month. The 1st choice in treatment of insulinoma is surgery. It may lead to a complete cure. In metastatic cases, debulking surgery and/or cytoreduction surgery (removal of insulin and its precursors secreting tumor tissue) may be used. Other therapeutic options are local control of tumor by hepatic artery embolisation, cryo-ablation, radio-embolisation and radiotherapeutic measures. As a medical treatment, diazoxide, beta-blockers, steroids, somatostatin analogs and everolimus may be used to control hypoglycemia.

