Hypoglycemia as First Presentation of Hepatocellular Carcinoma in Diabetic Patient

Mayssoun Rabeh Mohamed Radwan
Resident Physician, Alexandria Main University Hospital

Case Study

A 53-year-old male patient, type 2 diabetic since 12 years old, on a premixed insulin regimen presented to ER with loss of consciousness and random blood glucose of 39mg/dl.

After resuscitation and regaining consciousness level, he was admitted for close observation.

During admission, he experienced further attacks of hypoglycemia despite stopping insulin and being on continuous glucose infusion. After excluding renal impairment, sepsis, hypothyroidism, adrenal insufficiency, fasting insulin and c-peptide levels were obtained with the result [c-peptide: <0.1 ng/ml and insulin < 2 mU/L] consistent with NICTH (non-islet cell tumor hypoglycemia) as paraneoplastic syndrome. Chest and abdomen CT scans were ordered to localize the tumor, the significant finding was a liver mass compatible with hepatocellular carcinoma after performing a triphasic CT scan. Alpha-fetoprotein level was markedly elevated and viral serology was positive with HBsAg although the patient gave no history of liver disease.

For the treatment of patient hypoglycemia, dexamethasone 4mg twice daily was not effective, the patient only improved after frequent meals containing complex carbohydrates and octreotide. The patient was then able to start definitive treatment for HCC as he was a candidate for transarterial chemoembolization (TACE).

Keywords
hypoglycemia, hepatocellular carcinoma, type 2 diabetes, non-islet cell tumor