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Case Report

Tumor emboli from intrahepatic cholangiocarcinoma causing obstructive jaundice

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Introduction

Obstructive Jaundice due to Common Bile Duct (CBD) stone is a common clinical condition and often presents as recurrent jaundice. Tumor embolism causing jaundice is very rare. Long standing tumor, causing prolonged fluctuating jaundice can lead to secondary biliary cirrhosis.

Case report

A 44 year old male patient, chronic ethanol consumer of 45–60 ml/day for 25 years had presented with jaundice of 18 months duration. It was of insidious onset, at times with colicky pain with vomiting. Initially it was mild and used to

regress completely for 15–20 days to recur again. However, for the last 4 months it was not regressing and the depth of jaundice kept on increasing. It was associated with mild fever more so during the evening time. He had itching all over the body and passed pale stool. On examination, the vitals were normal. He was jaundiced, had scratch marks all over the body and had bilateral pedal edema. On abdominal examination there was ascites; spleen was just palpable and non-tender. Right lobe of liver was enlarged four centimeters below right costal margin, firm smooth and non-tender. His hemogram was normal. During hospitalization his Serum bilirubin ranged from 9 to 21 mg% with 90% conjugated fraction, ALT-120-157 IU/L and AST-48-74 IU/L. Serum alkaline phosphatase was from 140 to 380 U/L on various occasions with serum albumin of around 3.0 G%. USG and CT scan demonstrated gross ascites, left lobe appeared smaller and there was bilateral mild intrahepatic biliary radical (IHBR) dilatation (Fig. 1). No mass lesion could be seen either on CT or MRI. Repeat MRI/MRC (Fig. 2) reported as hilar block. Gastro-duodenoscopy had demonstrated grade II oesophageal varices and normal ampulla with bile at the duodenum. Repeated USG was not able to pin point the location of block. Because of doubt in diagnosis and IHBR dilatation, it was decided to explore after taking consent from the patient. He was prepared preoperatively with diuretics, vitamin K and adequate protein intake and intravenous human albumin. On exploration, there was evidence of portal hypertension in the form of dilated omental vessels, CBD was dilated 12 mm. A tumor was located on the liver segment II, III, IV (Fig. 2). A left hepatectomy was done (Fig. 3) preserving the middle hepatic vein. CBD was inspected and irrigated through cystic duct and left duct remnant and four tumor emboli could be recovered (Fig. 4). On examination of the specimen, the tumor

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Fig. 1 – CT scan abdomen showing ascites, atrophied left lobe liver and dilated biliary radical.

had eroded the left duct and it was embolizing to the CBD. Bile leak test was done. Left duct and the cystic duct were closed. Post-operatively, he was managed with fluid restriction with high glucose, diuretics and albumin besides other supportive measures. Histopathology of both the liver specimen and the emboli were reported as cholangiocarcinoma with secondary biliary cirrhosis of the liver. During the follow up period of 14 months with clinical examination, liver function tests and USG, the patient remained asymptomatic with regression of jaundice and ascites.

Discussion

Only 1–12% of Hepato Cellular Cancer (HCC) patients manifest with obstructive jaundice as the initial complaint.¹ It is due to obstruction of the bile duct through blood clot, biliary sludge, tumor compression or infiltration and cancer embolus. Jaundice due to tumor embolism to the common bile duct is very rare.^{2,3} CBD tumor embolus has been reported from HCC, intrahepatic cholangiocarcinoma, and cancer of gall bladder. Metastatic tumor of the liver can also present in the same way.^{4–6} Ours was a case of intrahepatic cholangiocarcinoma.

Fig. 2 – MRI of abdomen atrophied left lobe liver with differential shadow abnormal left lobe and normal right.

Fig. 3 – Hepatectomy specimen showing the tumor and biliary cirrhotic liver.

The uniqueness of the present case is that of initial intermittent jaundice which became continuous and led to biliary cirrhosis and hepatic decompensation. This can be explained by initial smaller emboli and later larger and frequent embolism. Larger embolus can block the hilum and then drop to CBD after partial disintegration as evidenced by four emboli of various stages in this case (Fig. 4). This also explained the variable findings of the imaging studies. The small volume left lobe of liver was actually the tumor, which are the features in hepatic cholangiocarcinoma. Curative resection of intrahepatic cholangiocarcinoma is the only therapy that can achieve long-term survival in cases without lymph node metastases or vascular invasion.⁷ Present case has survived and asymptomatic at 14 months.

Conclusion

Intermittent jaundice with variable levels of block in CBD in absence of any stone may be due to tumor embolus even in

Fig. 4 – Tumor emboli of various stages.

invisible tumor. Resection of intrahepatic cholangiocarcinoma can lead to longer and quality survival even after tumor emboli to CBD.

Conflicts of interest

All authors have none to declare.

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