MRCP Helps in Chronic Pancreatitis Complicated with Obstructive Jaundice

R. S. Sindhu · Bonny Natesh · Ramesh Rajan

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Abstract When chronic pancreatitis (CP) presents with obstructive jaundice, though there is a risk for malignancy, possibility of benign biliary stricture should also be considered on treatment planning. Imaging and tumour markers have limitations in distinguishing benign and malignant lesions in CP. Here, MRI has effectively picked up a mass lesion as the cause for obstructive jaundice in CP; the patient underwent pancreaticoduodenectomy and the histopathology proved it as adenocarcinoma in CP.

Keywords Chronic pancreatitis · MRI abdomen · ?Malignant CP · Mass lesion in CP · MRCP · ?Obstructive jaundice in CP

Introduction

Chronic pancreatitis (CP) in tropical countries show higher incidence of malignancy than in the west [1]. Serum bilirubin >5 mg% strongly predicts malignancy in CP [2] but benign biliary stricture can also cause jaundice.

Case Report

A 46-year-old gentleman presented with abdominal pain, icterus, pruritus, anorexia and weight loss of 2-months duration. He was diabetic, smoker and a social drinker. Examination revealed icterus, hepatomegaly and palpable gall bladder.

Liver function tests showed obstructive jaundice (serum total bilirubin 9.8 mg%). Fasting sugar was 226 mg%; serum

CA19-9 was 86. Ultrasound showed distal common bile duct (CBD) obstruction. CECT showed pancreatic calculi and distal CBD obstruction, but no mass lesions. Side viewing endoscopy showed prominent ampulla; biopsy was inconclusive. MRI/MRCP was done to look for mass lesions or stricture as the cause for jaundice, which showed (Figs. 1 and 2) an irregular pancreatic head mass lesion obstructing the distal CBD. We did pancreaticoduodenectomy, histopathology report was 1.7-cm-size well-differentiated adenocarcinoma pancreas infiltrating periampullary region, margins were negative, six lymph nodes showed reactive change and the pancreas showed chronic pancreatitis.

Fig. 1 MRCP. Pancreatic duct is dilated, with strictures and calculi. Biliary tree and gall bladder are dilated, distal CBD obstruction

R. S. Sindhu (✉) · B. Natesh · R. Rajan
Department of Surgical Gastroenterology, Govt. Medical College,
Trivandrum, Kerala, India
e-mail: sindhurs@hotmail.com

Fig. 2 MRI abdomen coronal reconstruction reveals mass lesion in the pancreatic head obstructing distal CBD

Discussion

Carcinoma pancreas has dismal prognosis and only early detection and resection can provide survival benefit. Tumour markers and imaging have limitations in distinguishing mass

lesions in chronic pancreatitis as benign or malignant. EUS-FNA might help, but targeting the malignant focus within the inflammatory mass containing multiple calculi is practically difficult as compared to the de novo carcinoma pancreas. FGD-PET scan may not be confirmatory in differentiating the inflammatory and the malignant aetiology in mass lesions in chronic pancreatitis as both these changes can show a PET avid appearance. Though CECT abdomen is reported to have the sensitivity up to 97 % for detecting carcinoma pancreas, reports are often equivocal with the co-existing inflammatory changes in chronic pancreatitis. MRI-MRCP may have advantages of better tissue delineation and default reconstruction imaging in difficult and high-risk situations. Here, MRI has helped in detecting the mass and thus in its definitive management.

References

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