Case Report

J Nepal Health Res Counc 2022 Apr-Jun;20(55):558-60

DOI:

Synchronous Primary Adenocarcinoma of Distal Common Bile Duct and Gall bladder

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ABSTRACT

Synchronous primary cancer of the gall bladder and distal common bile duct is rare. There are only few case reports and case series available of these synchronous cancers. Management of this tumor is individualized in these case reports and series based upon the presentation. We present a case of a patient who had multifocal adenocarcinoma involving distal common bile duct and gall bladder.

Keywords: Distal common bile duct cancer; gall bladder cancer; synchronous primary

INTRODUCTION

Synchronous primary cancers (SPC) are well known in colorectum, liver, lung, stomach cancers.[1,2]

But the synchronous cancers of the gall bladder and distal common bile duct are rare.[3-6] We report a case of a 62 years male who presented with this rare combination of malignancy and underwent pancreaticoduodenectomy, extended cholecystectomy and radical lymphadenectomy.

CASE REPORT

A 62 years gentleman without any co-morbidities was evaluated for obstructive jaundice of one month duration. Examination revealed icterus with palpable gall bladder without generalized lymphadenopathy. He had elevated total bilirubin of 26.6 mg/dl with conjugated bilirubin of 20.1 mg/dl. his Total leukocyte count was elevated to 12340 cells/cu mm with 81 % neutrophils. His CEA level was 32.59 units/ml and CA 19.9 was 1366 units/ml.

Contrast enhanced computed tomography of the abdomen showed a mass in the periampullary region with dilated common bile duct and intrahepatic biliary radicles. There was another enhancing mass in the fundus of the gallbladder Figure 1a and Figure 1b.

The patient underwent percutaneous transhepatic biliary drainage (PTBD). His bilirubin decreased to 17.7 mg/dl on the 4th day following PTBD. He underwent staging laparoscopy which did not reveal any peritoneal metastasis and ascites which was followed by laparotomy. There was a hard mass in the fundus and body of the gall bladder with another hard mass in the periampullary region. There were large lymph nodes along the hepatoduodenal ligament, along the right hepatic and periportal region. Replaced right hepatic artery originating from superior mesenteric artery and the periampullary mass was close to right hepatic artery and portal vein but was separable Fig 2a and Fig 2b.

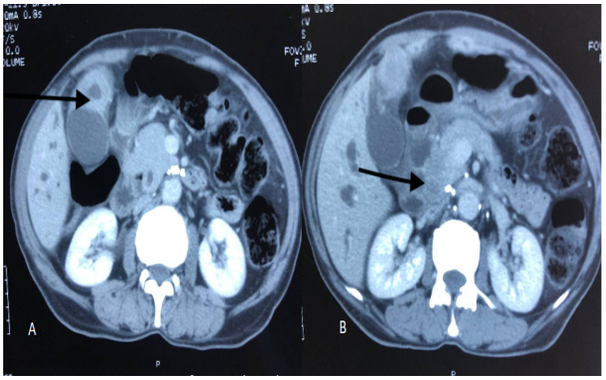

Figure 1. (A) CECT abdomen showing large enhancing gall bladder mass. (B) CECT abdomen showing mass in periampullary region.

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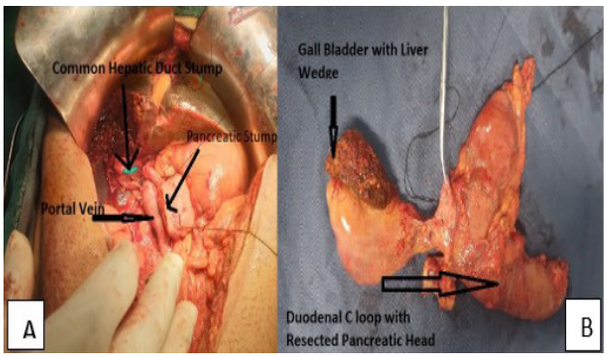

Figure 2. (A) Introoperative picture following resection. (B) Resected Pancreaticodudenectomy with extended cholecystectomy specimen.

The patient underwent superior mesenteric artery first technique for pancreaticoduodenectomy, extended cholecystectomy and regional lymphadenectomy.

Postoperative period was uneventful except for the biochemical pancreatic fistula which was managed by keeping the drain for 20 days. Postoperative histopathology revealed grade 2 moderately differentiated multifocal adenocarcinoma involving distal common bile duct and gall bladder with 8 out of 16 lymph nodes positive for the tumor. Fig 3a, 3b,3c,3d Pathological classification (pTNM, AJCC eight edition was pT4N2 for distal CBD tumor and pT2b for gall bladder tumor.

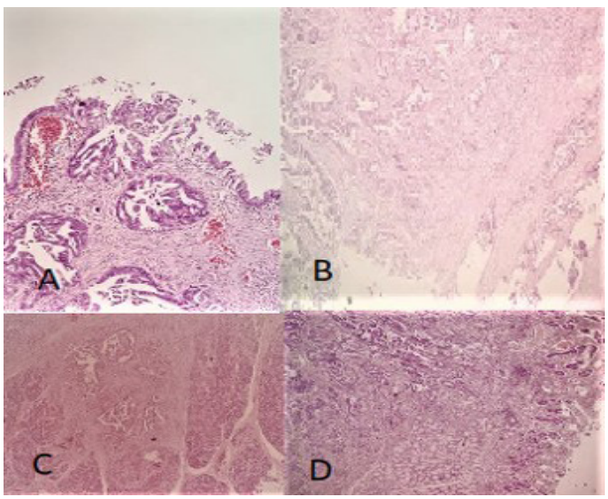

Figure 3. (A) Tumor arising from distal common bile duct. (B) Tumor arising from gall bladder wall 100X. (C) Tumor invading Pancreas 100X. (D) Tumor invading duodenal wall 100X.

He was referred to a medical oncologist for adjuvant therapy and received FOLFOX (5-Fluorouracil, Leucovorin, Oxaliplatin) regimen. In six follow up he was doing well without evidence of recurrence.

DISCUSSION

Overall multiple primary cancer incidence has been reported from 0.7 % to 11.7 %.[3]

Gertsch et al have suggested some criteria to label tumors as multiple biliary tumors which include different sites with intervening normal tissue, distinct histopathology and the probability that one is a metastasis from the other must be ruled out.[4] But broadly for all practical purposes, the tumors arising at two different sites without continuity or with normal intervening tissue are labelled as synchronous lesions. In our case, although both tumors shared similar histomorphology, no direct continuity between the two tumors was identified. Hence the diagnosis of multifocal malignancy of distal CBD and gall bladder was considered. Kurosaki et al advised the mapping technique to confirm the distinctness of the two lesions.[5]The tumors that share similar tumor histology but arise from the different sites might be monoclonal in origin as in our case. A true synchronous lesion maybe two tumors of different and distinct histology.[5]

Pathogenesis of gall bladder carcinoma doesn't follow adenoma-carcinoma sequence rather dysplasia in-situ to invasive carcinoma sequence.[6] There is a possibility of two different cancers at different sites arising in the same environment. Gall bladder and biliary tract both are exposed to the same biliary carcinogens and they may share some genetic predisposition too.[5] The field cancerization theory described by Slaughter et al for the aerodigestive tract may apply to the biliary tract as well in case of exposure to biliary carcinogens and patients with abnormal pancreaticobiliary duct junction (APBDJ).[5,7-9]Fugi et al in a case report and review of literature, found that 62.5 % of double biliary tract carcinoma and 100 % of the biliary tract are because of APBDJ.[9] In our case, the anatomy of the periampullary region was distorted because of the tumor, so the presence and absence of APBDJ could not be ascertained.

Curative R0 resection along with regional lymphadenectomy is the most effective treatment in terms of long-term survival. After complete R0 resection, synchronous cancers have a relatively good prognosis as compared to metastatic lesions.[5,10] Since the effectiveness of adjuvant therapy is not well established for biliary tract carcinoma, complete resection with regional lymphadenectomy is the best treatment for cure in patients with synchronous biliary tract cancers.[5,9,10]

CONCLUSIONS

Curative resection is feasible in patients presenting

with synchronous biliary tract malignancies. Curative resection with regional lymphadenectomy should be attempted in patients who are fit for anaesthesia to undergo a major operation.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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