

Billiary Tract Obstruction due to Gallbladder Carcinoma at Prof. Dr. R. D. Kandou General Hospital: Two Case Reports

Michael Tendean,¹ Toar D. B. Mambu,¹ Leonard A. Melatunan²

¹Division of Digestive Surgery, Department of Surgery, Faculty of Medicine, Universitas Sam Ratulangi, Manado, Indonesia

²Specialist Study Program of Department of Surgery, Faculty of Medicine, Universitas Sam Ratulangi – Prof. Dr. R. D. Kandou Hospital, Manado, Indonesia

Email:

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Abstract: Gallbladder cancer is the fifth most common gastrointestinal malignancy with a high mortality rate. Detection of gallbladder carcinoma in early stages can be difficult, despite improvements in ultrasound and CT-Scan imaging. It is possible to cure gallbladder cancer surgically at an early stage. We reported two cases of gall bladder carcinoma, 65-year-old and 52-year-old females, with the chief complaints of abdominal pain in the right upper quadrant (RUQ) and obstructive jaundice in both cases. The abdominal CT-scans showed circumferentially irregular focal thickening of gallbladder wall, and severe intra and extrahepatic cholestasis. Endoscopic preoperative biliary drainage using biliary stent was performed in one case. Open cholecystectomy with in toto common bile duct resection and portal lymphadenectomy followed by roux en-y hepaticojejunostomy reconstruction were performed for both cases. Both patients are still well with no cancer recurrences over two-year follow-up. The symptoms of gall bladder cancer were non-specific, and commonly included RUQ abdominal pain, weight loss, anorexia, nausea or vomiting, jaundice, and pruritus. Imaging with ultrasound and CT-Scan had improved preoperative diagnosis of gallbladder cancer. Outcomes of patient with incidental finding of gallbladder cancer had better prognosis since it provided the patient to be staged and managed appropriately with resection. In conclusion, early detection of gallbladder cancer results in better surgical outcome and less patient morbidity and mortality which shows its importance.

Keywords: gallbladder carcinoma; early-stage detection; biliary tract obstruction; common bile duct resection

INTRODUCTION

Gallbladder cancer is an exceedingly rare malignancy and fatal cancer with a high mortality rate in the developed world. Globally, cancer of the gallbladder is the fifth most common gastrointestinal (GI) malignancy with incidence rate varies widely reaching very high rates among North and South American women. The incidence of gallbladder carcinoma in the United States is 1 to 2.5 per 100,000.^{1,2} Its incidence seems to be significantly higher in women (3:1) and more commonly occurs in patients older than 40 years.³ The cause of gallbladder cancer is not well understood but is thought to be multifactorial. The primary risk factor for gallbladder carcinoma is cholelithiasis. Gallstones are found in 65% to 90% of patients with gallbladder carcinoma.²

Detection of gall bladder carcinoma in early stages can be difficult, despite improvements in ultrasound and computed tomography (CT) imaging. Most diagnoses of gallbladder carcinoma are made at advanced stages. In 47% to 78% of patients, gallbladder carcinoma is found incidentally during cholecystectomy for presumed benign disease, reflecting the initial clinically silent nature of this malignancy.^{1,2} It is possible to cure gallbladder cancer when tumors are treated surgically at an early stage.⁴

In this paper, the authors would like to present two case reports, 65-year-old and 52-year-old females, diagnosed as gallbladder cancer cases with the chief complaint of right upper quadrant (RUQ) abdominal pain and obstructive jaundice in both cases.

CASE REPORT

The two cases, 65-year-old and 52-year-old females, presented with the chief complaints of abdominal pain of right upper quadrant (RUQ), history of dyspepsia for several days, weight loss, and obstructive jaundice. On examination, both cases had RUQ tenderness, no rebound tenderness, and the Murphy's sign was positive at a period of time. The laboratory results revealed slightly increased total and direct bilirubin, but the other lab results were normal. The abdominal CT-scans revealed gallbladder with mass at the size 10 x 8 cm and circumferentially irregular focal thickening of gallbladder wall, and severe intra and extrahepatic cholestasis (Fig. 1, 4). In the 52-year-old case, a choledochal cyst Todani type 1A also existed along with the gallbladder carcinoma (Fig. 1).

Diagnosis and management were discussed with the patients. Endoscopic preoperative biliary drainage with biliary stent was performed in the 65-year-old case due to the high levels of bilirubin. The definitive therapy performed for both patients was open cholecystectomy with in-toto common bile duct resection, and portal lymphadenectomy followed by roux en-y hepaticojejunostomy reconstruction. The biliary stent in one case was removed intraoperatively. The tumor was removed without any complications, due to its clinical nature still limited in the gallbladder (Fig 2, 3, 5, 6). The duration of operation was 3 hours 16 minutes, with total blood loss around 275 ml, no blood transfusions were given, and length of hospitalization were eight days. Post operative conditions of both patients were uneventful, and no recurrences were detected at two-year follow-up. The histopathological findings revealed adenocarcinoma of the gallbladder in both patients.

DISCUSSION

The symptoms of gallbladder cancer are non-specific, and usually include RUQ abdominal pain, weight loss, anorexia, nausea or vomiting, jaundice, and pruritus.¹ The high rates of local recurrence and micro-metastases even for those considered surgically curable, renders clinical management challenging.⁵

The gallbladder carcinoma spreads via direct invasion, extensive regional lymphatic or hematogenous metastasis, perineural invasion, and intraperitoneal or intraductal invasion. In general, gallbladder cancer is the one of the most aggressive biliary malignancies with the shortest median survival duration. Complete surgical resection offers the only chance for cure; however, only 10% of patients present with early-stage disease and are considered surgical candidates. Among those patients who do undergo "curative" resection, recurrence rates are high.

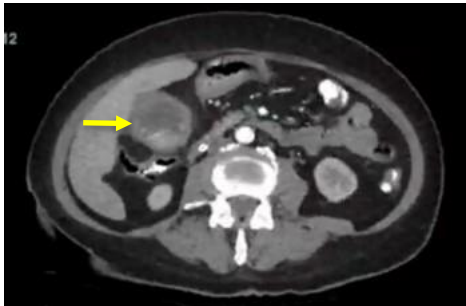


Figure 1. Preoperative abdominal CT-scan of case 1

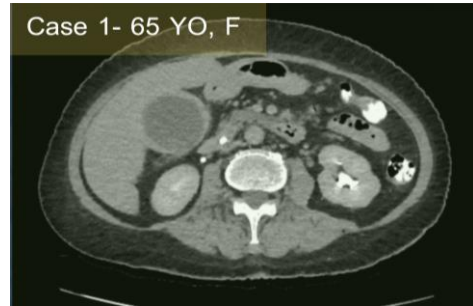


Figure 2. Intraoperative finding of case 1

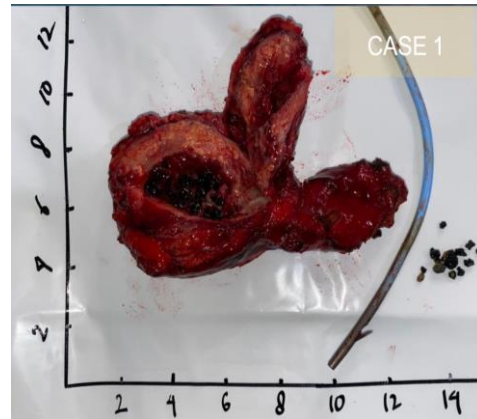


Figure 3. The resected specimen showing gallbladder mass

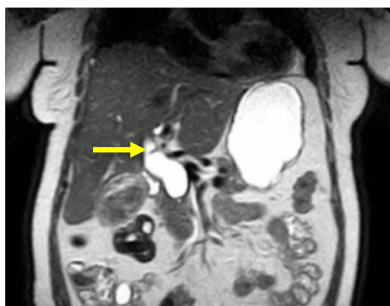


Figure 4. Preoperative abdominal CT-scan of case 2

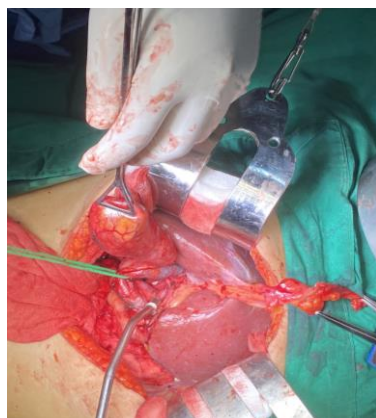


Figure 5. Intraoperative finding of case 2



Figure 6. The resected specimen showing gallbladder mass

Patients with unresectable or metastatic gallbladder cancer have a poor prognosis.^{2,6}

The gallbladder cancers associated with gallbladder stones (squamous cell, adeno-squamous cell and some adeno-carcinomas) are related to very long-term contact with the size of the stones. Although 75-90% of cases have gallbladder stones, only 1% of case with gallbladder stones is at risk of developing carcinoma.⁷

Aggressive surgical therapy of gallbladder cancer is becoming more common as large institutional series from the U. S. and abroad demonstrate longer survival times from more extensive resections while morbidity and mortality continue to improve. The American Joint Committee on Cancer (AJCC) T stage, patient fitness, and presence or absence of distant metastatic disease drive clinical decision making regarding whether a potentially curative resection can be offered. An unusual aspect of gallbladder cancer management is that it is often diagnosed incidentally after routine cholecystectomy for what is believed to be benign disease preoperatively.⁶ Imaging with ultrasound and CT-Scan has improved preoperative diagnosis of gallbladder cancer. Despite these advancements, only 50% of gallbladder cancers are recognized before surgery.¹

The outcome of patient with an incidental finding of gallbladder cancer has better prognosis since it provides the patient to be staged and managed appropriately with resection.¹ The surgeon performs the definitive surgical oncologic procedures with curative intent which include: simple cholecystectomy; extended or radical cholecystectomy with additional resection of greater than 2 cm of the gallbladder bed plus lymphadenectomy of the hepatoduodenal ligament behind the second part of the duodenum, head of the pancreas, and celiac axis; extended cholecystectomy with hepatic, segmental, or lobar resection; extended cholecystectomy with extensive para-aortic lymph node resection; and extended cholecystectomy with bile duct resection or pancreaticoduodenectomy.²

As with many other malignancies, lymphadenectomy is advocated in gallbladder cancer as a staging procedure. Formal portal lymphadenectomy, to include the nodal tissue of the hepatoduodenal ligament and portacaval and retroduodenal regions, is strongly recommended, primarily based on data from Japan. As can be seen in these case reports, the definitive procedure performed, including the lymphadenectomy in the hepatoduodenal ligament showed a better post operative outcome. Successful surgical therapy of gallbladder cancer requires a high level of suspicion for the diagnosis in patients with gallbladder wall thickening or polypoid lesions >1 cm in diameter. In the event that the gallbladder is removed and cancer is incidentally identified in a cholecystectomy specimen, the pathologist should report on T stage, location of the tumor with respect to the liver bed or peritoneal surface, and histology of the cystic duct margin.^{6,8}

CONCLUSION

As gallbladder cancers may develop over time on the basis of cholecystitis with chronic stones, early decision of gallbladder cancer resulting with better surgical outcomes, less morbidity and mortality for patient, shows its importance.

Conflict of Interest

The authors affirm no conflict of interest in this study.

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