



ORIGINAL RESEARCH PAPER

Oncology

OUTCOME OF RADICAL CHOLECYSTECTOMY IN CARCINOMA GALL BLADDER - A SINGLE CENTER STUDY

KEY WORDS:

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ABSTRACT

Gallbladder cancer is a rare but often lethal malignancy. It is the fifth most common gastrointestinal malignancy and the most common biliary tract cancer surpassing cholangiocarcinoma. The best chance of cure for a gall bladder carcinoma is with a Tis or T1 tumor incidentally discovered and T2 tumours. For more advanced GBCA, the outcome is usually grim, but improved outcomes have been realized with aggressive radical operative therapy, most commonly, radical cholecystectomy. With an increased level of suspicion and aggressive operative resection, survival outcomes should improve for patients with this deadly disease.

Introduction:

Gallbladder cancer (GBCA) is a rare but often lethal malignancy. It is the fifth most common gastrointestinal malignancy and the most common biliary tract cancer surpassing cholangiocarcinoma. Like all biliary and pancreatic malignancies, patients with GBCA usually have advanced disease at the time of diagnosis except for a subset of patients who are diagnosed incidentally at the time of elective cholecystectomy. Even with advances in diagnosis and treatment of GBCA, long-term survival remains dismal. Chemotherapy and radiotherapy are ineffective as a primary treatment, and resection remains the only chance for cure. Only a minority of patients are candidates for resection at the time of diagnosis. Even after curative resection, most series quote a long-term survival of only 5–12%. However, curative resection continues to be the only hope for survival and recent data suggests that aggressive resections may improve long-term survival even in patients with advanced stage disease. The goal of this study is to review the surgical treatment and outcomes for patients with GBCA.

MATERIALS AND METHODS:

20 cases of carcinoma gall bladder underwent radical cholecystectomy at the GCRI during August 2012 to February 2015. Data concerning some of these patients were studied prospectively and others were reviewed retrospectively. Patients selected for surgery were those where an oncological R0 resection was anticipated. The preoperative work up included CA 19-9, Chest X-ray, USG abdomen, CT scan abdomen and Diagnostic Laparoscopy in addition to LFTs and other routine blood investigations. Curative surgery was defined as complete resection of all macroscopic and microscopic tumor. An R0 resection was defined as the absence of tumor cells at all resection margins, while any margin involvement defined as R1 resection. Patients given resection were followed up regularly at the outpatient clinic every 3 months. A detailed study was done in terms of the surgical procedure, post-operative status of the patient and follow up. The results of surgery were then evaluated for operative outcome, operative morbidity/mortality and disease free survival.

RESULTS and DISCUSSION:

The maximum no. of patients undergoing radical cholecystectomy were in the fifth decade. Of the 20 patients, 17 were female (85%) and 3 were male (15%). Total 16 patients presented with various complaints. 4 patients were incidentally detected cases of carcinoma and were referred to GCRI after simple cholecystectomy outside. Total eight out of our twenty patients (40%) had gall stones, detected on imaging.

1. OPERATIVE DETAILS:

Four incidentally detected, histologically confirmed (muscle layer invasion T1b) cases of GBCA underwent segment IVb and V liver resection with regional lymphadenectomy. One patient underwent radical cholecystectomy + right hepatectomy and one other underwent Radical cholecystectomy + right hemicolectomy due to the involvement of respective organs. Two patients had mass at the neck of GB and frozen section margin of cystic duct was positive, so radical cholecystectomy + wide local excision of bile duct (CHD/CBD) with reconstruction (hepaticojejunostomy) was performed. All remaining patients underwent radical cholecystectomy, that is, en bloc resection of gall bladder with segment IVb and V of liver and regional lymphadenectomy. Average operative time was 3.6 hours, the range being 3 hours to 4.5 hours. The average blood loss was around 365.0 ml, the range being 150 ml to 750 ml.

2. PATHOLOGICAL STAGE:

Based on postoperative final histopathology report, all the cases had adenocarcinoma and R0 resection. Four patients (20%) had stage I - T1b N0 disease, six patients (30%) had stage II - T2 N0 disease, three patients (15%) had stage IIIA - T3 N0 disease and seven patients (35%) had stage IIIB – T1-3 N1 disease.

3. COMPLICATIONS

The proportion of overall peri-operative complications was 40%. Most common complication was wound infection which was managed by appropriate antibiotics after culture and sensitivity report and daily dressings. One patient had persistent hemorrhagic drain output and was re-explored on the second post-op day with packing of operative bed and could not be saved. Bile leak was found in only one patient, which stopped spontaneously with conservative and supportive treatment. One patient developed respiratory complication in the form of postoperative atelectasis and pleural effusion which was managed conservatively.

4. POST OPERATIVE HOSPITAL STAY:

Maximum number of patients had post operative stay of five days with the median of six days. The maximum stay was 25 days and the minimum stay was five days. One patient succumbed to postoperative complication of haemorrhage and could not be saved.

5. ADJUVANT TREATMENT:

Though in literature, the role of chemotherapy remains debatable with variable response(10-69%), adjuvant chemotherapy in the

form of gemcitabin was given to the eligible patients in present study. Total seven patients were started on adjuvant gemcitabin therapy.

6. PATIENT OUTCOME:

Out of the total 20 patients studied in this series, one patient died of haemorrhage in immediate post-operative period. Two patients expired within 3 months due to disseminated disease. One patient was lost to follow up after 1 month. The remaining 16 patients had a mean follow up of 7.5 months, with least follow up of 3 months and maximum follow up of 12 months. At 3 months follow up, 2 out of 16 patients developed liver metastasis. So, disease free survival at 3 months was 77.77% and overall survival was 84.21% for all stages. At 6 months follow up, additional 2 patients showed liver metastasis on follow up sonography. So at 6 months overall survival rate for all stages was 72.2% and disease free survival was 61.11%. At 9 months follow up, additional 4 patients developed metastatic disease. Thus at 9 months overall survival for all stages was 50% and disease free survival was 22.22%. Of these 16 patients, only 9 patients were eligible for 1 year follow up according to our study duration. 2 patients (22.2%) survived beyond 1 year out of these 9 patients.

CONCLUSION:

The best chance of cure for a gall bladder carcinoma is with a Tis or T1 tumor incidentally discovered and T2 tumours. For more advanced GBCA, the outcome is usually grim, but improved outcomes have been realized with aggressive radical operative therapy, most commonly, radical cholecystectomy. With an increased level of suspicion and aggressive operative resection, survival outcomes should improve for patients with this deadly disease. There is much room for improvement in all aspects of treatment for GBCA including early diagnosis, imaging and staging, surgical technique, management of resectable and unresectable patients, adjuvant therapy, supportive care and so on.

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