Gallbladder Adenocarcinoma: A Case Series of Two Patients with Distinct Clinical Outcomes

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Introduction

- Gallbladder cancer (GBC) although a rare malignancy of the gastrointestinal tract; accounts for **80-90%** of biliary tract cancers and is considered the most common type.
- Gallbladder adenocarcinoma is an uncommon malignancy, often incidentally discovered and difficult to treat.
- GBC is a major cause of death in several countries, including Chile, India, and Japan.
- Risk factors for GBC include cholelithiasis, female sex, advanced age (>65 years), biliary cysts, porcelain gallbladder, gallbladder polyps, and chronic Salmonella typhi or Helicobacter pylori infection.
- **Patient A, 70-year-old female and Patient B a 43-year-old male smoker. These cases present stark contrasts: older vs. younger, acute vs. delayed presentation, and contrasting pathology.**
- The two presented patients in this series, reveal the **wide variety of clinical and pathological range** of the disease. The two cases illustrate the **necessity for clinicians to remain skeptical** in patients that present initially with biliary symptoms because early representations frequently bear a resemblance to benign gallbladder conditions. The cases also illustrate the **surgical challenges of this gallbladder adenocarcinoma,** specifically the difficulty of differentiating early cancer from an inflammatory disease before resection.
- Both patients underwent cholecystectomies. Post Operative course was uncomplicated, and patients were discharged same day with no further consults
- Gallbladder adenocarcinoma carries a poor prognosis because it is often detected at advanced stages when jaundice, weight loss and an abdominal lump are present. Majority of these cases have a 66% recurrence rate in the first year. **Prompt detection and early surgical removal (gold standard)** are both dependable methods for a good prognosis.

Acknowledgements

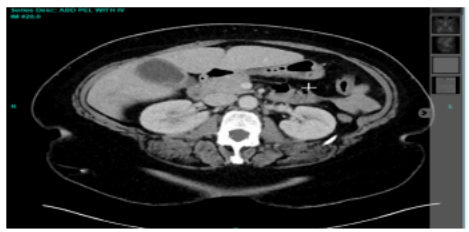
Rathanaswamy, Sivaprakash & Misra, Sanjeev & Kumar, Vijay & Chintamani, Chintamani & Pogal, Jaipalreddy & Agarwal, Akash & Gupta, Sameer. (2012). Incidentally Detected Gallbladder Cancer- The Controversies and Algorithmic Approach to Management. The Indian journal of surgery. 74. 248-54. 10.1007/s12262-012-0592-7.

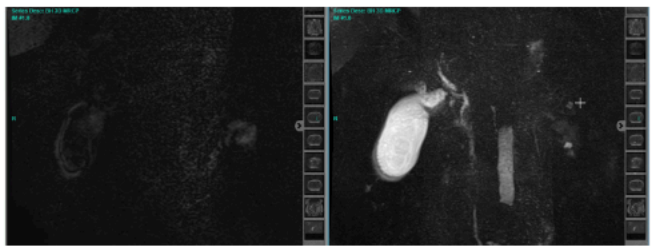
Case Presentations

Feature	Patient A (70F)	Patient B (43M)
Past History	Hypertension Umbilical hernia repair	Appendectomy, Smoking, Alcohol/cocaine use
Presentation	Acute RUQ/epigastric pain (hours), Fever, Nausea Non-bilious vomiting	RUQ pain for 3 days, Nausea, Vomiting, Constipation,
Vitals	Febrile(101.1°F), Normocardic Hypertensive	Afebrile Bradycardic (54bpm) Normotensive
Exam	RUQ/epigastric tenderness Moderate distress	RUQ tenderness Moderate distress
Labs	WBC 13.9 AST 457, ALT 230 Total Bilirubin 1.7	WBC 14.0 Chloride 108 Total Bilirubin 1.6, ALT 28, AST 53
Imaging	**MRCP**:Cholelithiasis, Wall thickening, Pericholecystic fluid **CT:** Cholelithiasis; Gallbladder wall thickening and distension	**US+CT**: Stones at GB neck, Distended GB, Wall thickening, Normal CBD
Pathology	Well-differentiated adenocarcinoma (0.2 cm), High-grade dysplasia, Clean margins	Chronic cholecystitis; Low-grade BilIN; Polypoid cholesterolosis; Clear margins

Discussion

Patients with GBC are usually asymptomatic or they may present with nonspecific symptoms such as abdominal pain, nausea, and vomiting. Symptomatic patients who present with symptoms more suggestive of acute cholecystitis often have an incidental diagnosis with earlier-stage disease and a better long-term prognosis. This was observed in our two cases where patients presented with signs and symptoms of acute cholecystitis, which were confirmed by ultrasonography and CT scan.





Tx	Primary tumour could not be assessed		
T0	No evidence of primary tumour		
Tis	Carcinoma in situ		
T1	Tumour invades lamina propria or muscular layer		
T1a	Tumour invades lamina propria		
T1b	Tumour invades muscular layer		
T2	Tumour invades perimuscular connective tissue; no extension beyond serosa or in to liver		
T3	Tumour perforates the serosa (visceral peritoneum) and/ or directly invades the liver and/or one another organ or structure, such as the stomach, duodenum, colon, pancreas, omentum, or extra hepatic bile ducts		
T4	Tumour invades main portal vein or hepatic artery or invades two or more extra hepatic organs or structures		
Regional Lymph Nodes (N):			
Nx	Regional Lymph Nodes cannot be assessed		
N0	No Regional Lymph Node metastasis		
N1	Metastases to nodes along the cystic duct, common bile duct, common hepatic artery, and portal vein		
Distant Metastasis (M):			
M0	No Distant Metastasis		
M1	Distant Metastasis		
Staging Gruops			
Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage II	T2	N0	M0
Stage IIIA	T3	N0	M0
Stage IIIB	T1-3	N1	M0
Stage IVA	T4	Any N	M0
Stage IVB	Any T	Any N	M1

Treatments of GBC vary based on the TMN guidelines (expanded above), which provide easy survival statistics and treatment guidelines for gallbladder cancer. Metastatic GBC to two or more organs or involvement of the hepatic artery and portal vein are considered stage T4, and they are inoperable and managed with palliative treatment. Neoadjuvant chemotherapy is not routinely used in advanced disease, as its role remains under investigation.