

Case Report

Cholecystitis suspicion followed by and unexpected diagnosis: a case report

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ABSTRACT

Gallbladder cancer is the 5th most common gastrointestinal cancer, is 2-3 times more frequent in females, and gallstones represent the most important association with this type of cancer. It is generally diagnosed incidentally after cholecystectomy for cholelithiasis and complete surgical resection offers the only potential cure. We report a case of a 42-year-old female, previously healthy, with upper right quadrant pain for 2 weeks and an ultrasound suggestive of cholecystitis. Unfortunately, intraoperative findings were discouraging.

Keywords: Gallbladder cancer, Gallstones, Cholecystectomy, Incidental

INTRODUCTION

Gallbladder cancer is the 5th most common gastrointestinal cancer and the most common biliary tract malignancy.^{1,2} It is also 2-3 times more frequent in females.^{1,5} Although rare in developed countries, it is common in some specific geographical regions (northern India, Chile, Japan and Eastern Europe) which can be explained by the interaction of genetic and environmental factors.^{1,4}

This cancer is characterized by the lack of symptoms at initial stages, most frequently being diagnosed incidentally. The incidence of gallbladder cancer after cholecystectomy for presumed benign gallstone disease is 0.2-3%.^{4,5}

The lack of clinical manifestations and the absence of a serosal layer enabling hepatic invasion, predisposes to metastatic disease and to the poor outcome of this malignancy.¹

Current case report is a 42-year-old female, previously healthy, that approached her General Practitioner due to upper right quadrant pain for 2 weeks as the only complaint. At clinical examination, she had tenderness in the upper right quadrant, a palpable gallbladder and the ultrasound showed a gallbladder wall thickening with cholelithiasis, suggestive of cholecystitis. Unfortunately, intraoperative findings were discouraging.

CASE REPORT

A 42-year-old female, Caucasian, previously healthy, approached her general practitioner due to upper right quadrant pain for 2 weeks. She had no complaints of nausea, vomiting, fever, anorexia or weight loss and at clinical examination she had tenderness in the upper right quadrant and a palpable gallbladder. An ultrasound was performed and showed a gallbladder wall thickening with cholelithiasis, suggestive of cholecystitis and the patient was referred for urgent evaluation by General Surgery. Laboratory workup showed no elevation of inflammatory markers and slightly elevated liver enzymes.

Given the evolution of the complaints, a medical approach was decided and the patient was treated with piperacillin/tazobactam. At day 5, due to the absence of clinical improvement, a CT scan was performed, showing cholelithiasis, diffuse gallbladder wall thickening and pericholecystic fat inflammation. At this point, a laparoscopic cholecystectomy was proposed to the patient.



Figure 1: CT scan showing gallbladder wall thickening.

A celioscopy was performed and the intraoperative findings included: distended gallbladder and adherence to the pylorus, duodenal thickening, parietal peritoneum implants, pyloric adenopathies, moderate biliary ascites and the absence of suspicious hepatic lesions. Given the unpredictable scenario and the impossibility to dissect the Callot triangle due to neoplastic infiltration, biopsies were made, and biliary fluid was sent for cytological evaluation.

Histopathologic evaluation of the peritoneal implant and the pyloric adenopathy were both compatible with signet ring cell carcinoma with gallbladder origin. The cytology was positive for malignant cells.

The case was presented in a multidisciplinary team meeting, and the patient was referred for palliative chemotherapy, given the peritoneal metastazition.

DISCUSSION

Risk factors associated with gallbladder cancer include chronic inflammation due to cholelithiasis, porcelain gallbladder, gallbladder polyps, chronic bacterial infections, bile reflux, abnormal pancreatobiliary junction, sclerosing cholangitis, exposure to chemicals such as heavy metals, aflatoxins and ochratoxin, obesity, increased age and female sex.¹⁻³

Gallstones represent the most important association with this type of cancer, being present in 85% of patients with gallbladder cancer.^{2,4} Gallstones greater than 3 centimeters are associated with greater risk.⁴

A laparoscopic cholecystectomy is recommended for polyps greater than 1 cm or smaller but showing rapid growth, sessile polyps or solitary masses and in patients with more than 50 years old.^{2,4}

Clinical symptoms are often absent or maybe similar to biliary colic or chronic cholecystitis- right upper quadrant pain, nausea, jaundice, weight loss and occasionally a palpable mass maybe noticeable.²

Ultrasound is usually the first diagnostic tool and CT scan performed pre-operatively determines resectability.²

Prognosis is affected by an early diagnosis and complete surgical resection (R0). Despite the potential of cure in early stages, only 10% of patients have resectable lesion at the time of surgery and nearly 50% have lymph node invasion.² Overall 5-year survival is less than 5%.^{2,4}

Complete surgical resection is the only potential cure and is determined by the tumor invasion (T). Tis and T1 cancers (limited to the mucosa) are usually incidental after laparoscopic cholecystectomy for cholelithiasis. In this case, simple cholecystectomy is curative.^{5,6}

Re-resection is indicated in T1b (invasion of the muscularis layer), T2 or T3 disease without metastazition and significant risk of morbidity.⁶

Unfortunately, there is no effective adjuvant treatment for gallbladder cancer and radiotherapy has not been proven useful.²

CONCLUSION

Gallbladder cancer is the most common biliary tract cancer and the one with the shortest median survival. Chronic inflammation due to cholelithiasis is the most important risk factor. Diagnosis is usually made at the time of elective cholecystectomy for gallstones due to the lack of specific clinical symptoms and surgery represents the only potential cure. Regrettably, gallbladder cancer is highly lethal, with an overall 5-year survival is less than 5%.

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REFERENCES

1. Sharma A, Sharma KL, Gupta A, Yadav A, Kumar A. Gallbladder cancer epidemiology, pathogenesis and molecular genetics: Recent update. World J Gastroenterol. 2017;23(22).
2. Rakić M, Patrlj L, Kopljar M, Kliček R, Kolovrat M, Loncar B et al. Gallbladder cancer. Hepatobiliary Surg Nutr. 2014;3(5):221-6.
3. Schmidt MA, Marcano-Bonilla L, Roberts LR. Gallbladder cancer: epidemiology and genetic risk associations. Chin Clin Oncol. 2019;8(4):31.

4. Goetze TO. Gallbladder carcinoma: Prognostic factors and therapeutic options. *World J Gastroenterol.* 2015;21(43).
5. Dincel O, Goksu M, Hatipoglu HS. Importance of routine histopathological examination of a gallbladder surgical specimen: Unexpected gallbladder cancer. *J Cancer Res Ther.* 2018;14(6).
6. Zaidi MY, Abou-Alfa GK, Ethun CG. Evaluation and management of incidental gallbladder cancer. *Chin Clin Oncol.* 2019;8(4):37.

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