

## Case Report

# Squamous Cell Carcinoma of the Gall Bladder Masquerading as a Liver Abscess

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### ABSTRACT

The most common gall bladder malignancy is an adenocarcinoma. Other types of malignancies are rarely reported in the gall bladder (GB). We report a rare case

of squamous cell carcinoma of the GB in a 35-year-old Bangladeshi lady who presented with signs and symptoms of a big liver abscess and normal tumor marker (CA-19.9) levels.

KEY WORDS: cancer, gall bladder, liver abscess, squamous cell carcinoma

### INTRODUCTION

Gall bladder (GB) cancer is the fifth most common malignancy of the gastrointestinal tract<sup>[1,2]</sup>. It is usually discovered incidentally after a cholecystectomy for calculi biliary disease. Adenocarcinoma is the most common malignant gall bladder tumor. Squamous cell carcinoma (SCC), papillary, anaplastic and angiosarcomas are rare GB malignancies. Most reports of a SCC of the GB are found to be mixed with another type of gall bladder malignancy. The reported incidence of pure SCC accounts for almost 1.4 - 3.3% of all GB cancers<sup>[1-5]</sup>.

### CASE REPORT

A 35-year-old Bengali female, with diabetes mellitus, was admitted to the medical ward as a case of severe non-biliary pancreatitis complicated with bilateral pleural effusion. Abdominal ultrasound (US) and CT scans showed a hypodense GB bed lesion with mildly enhanced margins (Fig. 1a, b, c). Unfortunately, after her pancreatitis improved, she was discharged from hospital by her employer before the gallbladder lesion was thoroughly evaluated.

A year later, she presented to the surgical ward with pain in the upper abdomen, associated with nausea, vomiting and high fever. On examination, she looked ill and febrile with tachycardia. There was tenderness in the right hypochondrium and epigastrium with guarding and a big tender mass arising from the liver

with severe tenderness on the lower intercostals. Her liver function tests showed only a high alkaline phosphatase (239 IU/l) and normal serum bilirubin. She was provisionally diagnosed as a possible case of liver abscess versus liver tumor with central necrosis.

Serology screening for amebiasis and hydatid cyst were negative. Tumor markers (AFP, CA-19.9, CEA and CA-125) were negative. ERCP showed normal extrahepatic ducts with extravasation of the contrast from the gall bladder into a big irregular cavity in the liver (Fig. 2a). Percutaneous transhepatic aspiration under fluoroscopy from the cavity revealed thin turbid fluid which was sent for cytology. It was reported later as non-conclusive.

A CT scan showed a large 11.5 x 7.7 x 11.4 cm lobulated inhomogeneous hypodense lesion occupying segments IV, V & VI of the liver (Fig. 2b). It showed post-contrast peripheral incomplete enhancement of the lesion with non-enhancement of a central big cavity consistent with features of an abscess cavity within the liver (segments IV, V & VI). A Gallium study showed photopenic lesion within the right liver lobe that was consistent with the radiological finding of necrotic liver tissue or liver abscess.

The patient continued to be septic despite potent intravenous antibiotic therapy. Surgical exploration was decided which revealed a big GB tumor infiltrating the liver and abdominal wall with many seedlings all over the liver. The case was considered inoperable and

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Fig. 1: Abdominal US (a) and CT scans (b,c) during the first admission showing a hypodense gallbladder bed lesion with mildly enhanced margins

a biopsy was taken for histopathology which showed a SCC of the GB. She was managed symptomatically with analgesics and intravenous antibiotics but she continued to be septic and was deteriorating with time. She passed away two weeks after the final diagnosis was reached.

#### DISCUSSION

Pure SCC of the gallbladder accounts for almost 1.4 - 3.3% of GB cancers<sup>[1-5]</sup>. It is mostly found mixed with other types of metaplasia of the GB and these account for almost 12% of the GB carcinomas<sup>[1,3]</sup>. SCC of the GB is more common in females with a F:M ratio of 3:1. It presents at an earlier age (4<sup>th</sup> - 6<sup>th</sup> decade) than adenocarcinoma. It grows rapidly, metastasizes early and has a worse prognosis. It has a direct local and regional spread with rare lymph node and peritoneal metastasis<sup>[1,6-8]</sup>.

In the case presented here, the patient was in the middle of her 3<sup>rd</sup> decade. In consistence with what is known about the pattern of spread of SCC of GB, there was direct local spread involving the liver at the time of diagnosis with severe necrosis giving the impression of a liver abscess or a GB empyema perforating into the liver.

Different hypotheses were put forward for the development of SCC in the GB: i) malignant transformation of heterotopic squamous epithelium ii) malignant transformation of metaplastic squamous epithelium or iii) squamous metaplasia of adenocarcinoma<sup>[1,6]</sup>. In the case reported here it seems that malignant transformation of squamous epithelium is more likely since the histopathology examination did not observe the presence of any adenocarcinomas or any cell in the transitional stage between adenocarcinoma and SCC.

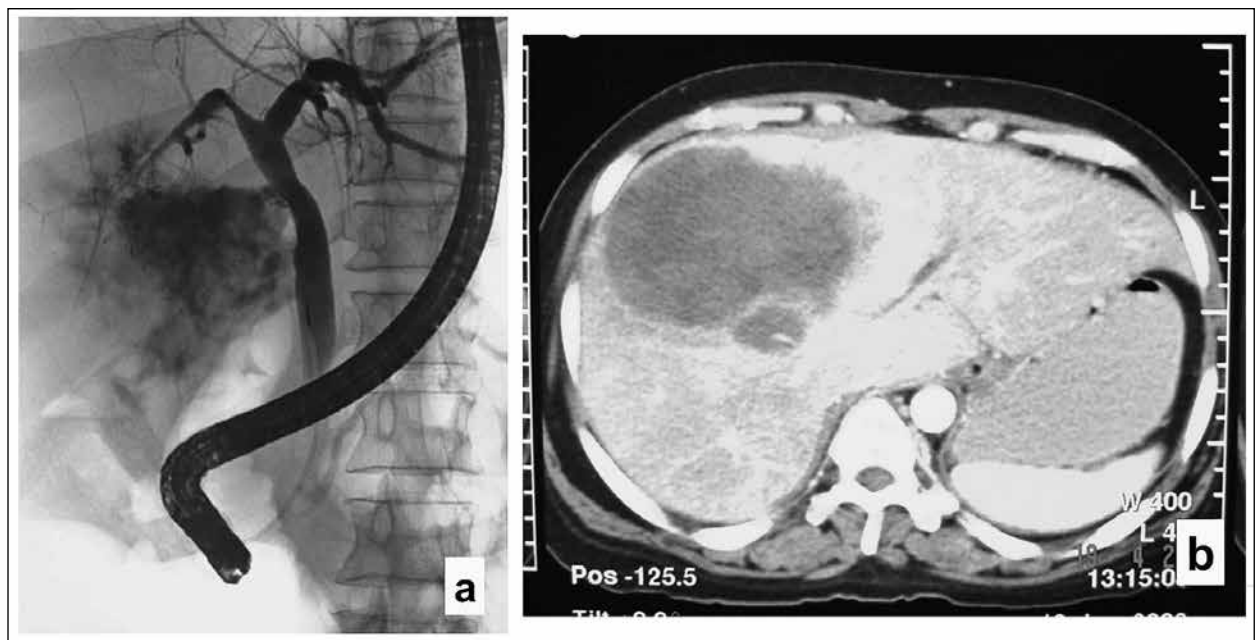


Fig. 2: ERCP (a) showing normal extrahepatic ducts with extravasation of the contrast from the gall bladder into a big irregular cavity in the liver. CT scan (b) with i.v. contrast showing a big (11.5 x 7.7 x 11.4 cm) hypodense and inhomogenous lesion with post-contrast peripheral incomplete enhancement and non-enhancement of the center consistent with the diagnosis of an abscess cavity within the liver (segments IV,V&VI).

In SCC, the extent of the tumor at the time of diagnosis is the most important indicator for survival. The average reported survival rate is about six months after diagnosis when radical surgery was not possible. Perhaps because SCC is a rare tumor, there are no published data that show improvement of survival or the quality of life after radiotherapy or chemotherapy in these patients.

Unfortunately during the first admission this patient was prematurely discharged from hospital. During the second admission, though malignancy was thought of but the severe sepsis, the leak of contrast from the GB into the liver on ERCP, the aspiration of turbid thin fluid from the lesion and the negative tumor markers confused the issue.

### CONCLUSION

SCC of the gall bladder is a rare, aggressive lesion which presented to us late with sepsis and features consistent with a liver abscess.

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