



# Incidental signet ring cell carcinoma of the gallbladder in routine histopathology

Ertunç Altuntaş<sup>1</sup>, Cengiz Koçak<sup>2</sup>, Zülfü Bayhan<sup>3</sup>, Sezgin Zeren<sup>3</sup>, Faik Yaylak<sup>3</sup>

## ABSTRACT

Cholecystectomy is a common surgical procedure for various indications. Preoperative imaging is the main stay in the management of the patients. Routine and/or selective histopathological examination of the cholecystectomy materials have been discussed previously. However, incidental findings may be only observed with routine histopathological examination. Here, we report an incidental gallbladder signet cell carcinoma in a 66 years old patient. This case underlines the importance of routine histopathological examination after cholecystectomy.

**Keywords:** Cholecystectomy, gallbladder, signet cell carcinoma

## INTRODUCTION

Laparoscopic or open cholecystectomy is one of the common elective procedures in general surgery practice. Cholecystectomy may be scheduled for acute or chronic disorders of the gallbladder. Gallbladder stone disease with acute or chronic cholecystitis is the most frequent reason for cholecystectomy (1). In addition gallbladder malignancy may be a clinically controversial and challenging condition for some patients (2). Furthermore preoperative diagnosis of an incidental gallbladder malignancy may not be possible in routine preoperative evaluation.

Preoperative imaging is the important part of perioperative management for the patients with gallbladder disease. Ultrasound is used commonly for its cost effective and accepted reliability. Ultrasonography may be the single preoperative imaging technique in routine practice of emergent or elective cholecystectomy. However, for those selected patients with obstructive jaundice, pancreatitis or complicated cholecystitis further imaging techniques may be used to document biliary anatomy (3). Histopathological examination after cholecystectomy completes and confirms the diagnostic evaluations. In addition, incidental findings may be observed (4, 5).

In this paper, a case of incidental signet ring cell carcinoma of the gallbladder has been presented to underline the importance of routine histopathological examination after cholecystectomy.

## CASE PRESENTATION

Sixty-six years old lady applied to our clinic with chronic right upper abdominal pain and umbilical mass. Her previous medical and surgical history was not significant. She denied a specific medical condition in her family. She was a non-smoker and a non-alcohol drinker. Physical examination revealed umbilical hernia. However, peritoneal irritation signs were absent. Elective ultrasound of the abdomen has documented gallbladder stones and no other significant finding was reported. The patient was treated with elective laparoscopic cholecystectomy and umbilical defect was repaired primarily. Postoperative course was uneventful. Histopathological examination has documented signet ring cell carcinoma of the gallbladder. The tumor was located in the body of the gallbladder. Surgical margins were intact and the tumor was graded as pT2 with perimuscular connective tissue invasion (Figure 1, 2). Antral gastritis was observed in postoperative elective upper gastrointestinal endoscopy. Endoscopic antral tissue sampling revealed normal gastric mucosa. Colonoscopy revealed no significant mucosal pathology. During further evaluation the patient has rejected the scheduled follow-up. Written informed consent was obtained from patient who participated in this case.

## DISCUSSION

Routine and/or selective histopathological examination of the cholecystectomy materials have been discussed previously (4, 5). Selective histopathology has potential to lower cost per case. (6). However, routine histopathology has an advantage to document any incidental findings. In this case we observed an incidental signet cell carcinoma of the gallbladder. Primary and even metastatic signet cell carcinoma of the gallbladder has been reported previously (7, 8). Thus, histopathology report has prompted reeval-

<sup>1</sup>Clinic of General Surgery, Evliya Çelebi Training and Research Hospital, Kütahya, Turkey

<sup>2</sup>Department of Pathology, Dumlupınar University School of Medicine, Kütahya, Turkey

<sup>3</sup>Department of General Surgery, Dumlupınar University School of Medicine, Kütahya, Turkey

**Address for Correspondence**  
**Zülfü Bayhan**  
e-mail: zulfubayhan@gmail.com

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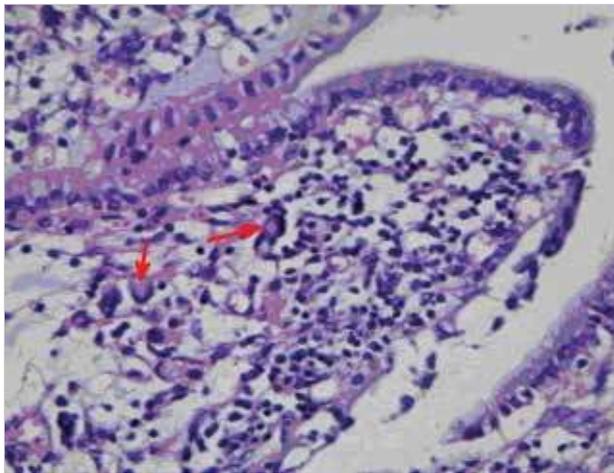


Figure 1. Gallbladder carcinoma with signet-ring cells (Hematoxylin-eosin, x40)

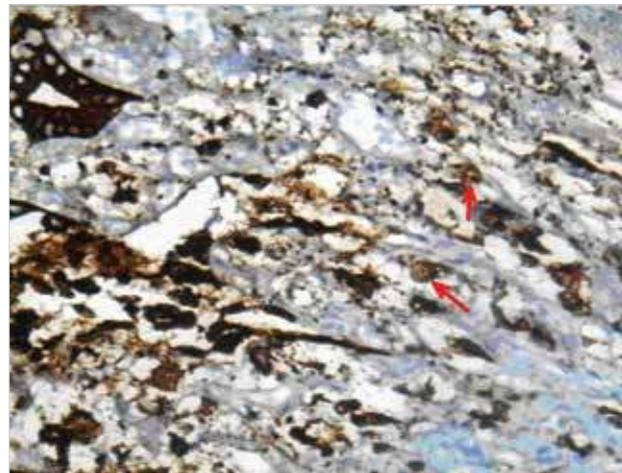


Figure 2. Gallbladder carcinoma with signet-ring cells (Pancytokeratine, x40)

uation of the patient. Breast and gastrointestinal tract screening was performed to exclude a primary tumor outside the gallbladder. Selective histopathological examination might result with a delay in the diagnosis of the cancer in this patient.

Recently the authors have discussed their observations on routine histopathological examinations after cholecystectomy for chronic cholecystitis (9). In this study they have reported that gallbladder wall thickness was not correlated with age. In addition histopathological gallbladder wall thickness was not correlated with acute inflammation in the elderly patients. However, various histopathological alterations were reported with routine histopathology. Thus it is clear that main purpose of histopathological examinations after cholecystectomy should be to confirm the clinical diagnosis and exclude incidental findings. With documentation of an incidental carcinoma, surgeon has another chance to review the management plan for the patients' favor and needs.

Signet cell carcinoma of the gallbladder is not a new clinical entity. However, this case presentation underlines the surgeon's role before and after cholecystectomy. Surgeons should be aware of the ethical and legal issues in the management of rare and incidental clinical findings. The authors recommend routine histopathologic examination. Surgeons should always review the pathology reports after cholecystectomy. In all cases the results of the histopathological examination should be discussed with the patient. In some cases further clinical evaluation may be considered.

## CONCLUSION

Routine histopathology after cholecystectomy has potential to document rare clinical entities such signet cell carcinoma of the gallbladder. Signet cell carcinoma of the gallbladder may be primary or metastatic which merit further clinical investigation.

**Informed Consent:** Written informed consent was obtained from patient who participated in this case.

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