

## Port site recurrence of gallbladder cancer after laparoscopic cholecystectomy

### *Laparoskopik kolesistektomi sonrası port alanı nüksü gelişen safra kesesi kanseri*

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#### **Abstract**

The incidence of incidental carcinoma of the gallbladder discovered histologically after laparoscopic cholecystectomy is 0.25-3%. Additional radical surgery may be required depending on the stage of the tumor. But, recurrence may rarely occur at the site of port. Herein, we presented a case of gallbladder carcinoma discovered incidentally who subsequently developed recurrence at the epigastric port site after laparoscopic cholecystectomy.

**Keywords:** Gallbladder carcinoma, laparoscopy, port site recurrence

#### **Özet**

Laparoskopik kolesistektomi sonrası insidental olarak saptanan safra kesesi kanseri insidansı %0,25-3'tür. Tümörün evresine göre ek bir radikal cerrahi girişim gerekebilir. Ancak port yerinde nüks nadiren görülebilir. Burada biz laparoskopik kolesistektomi sonrası epigastrik port alanında nüks gelişen insidental olarak tanı almış safra kesesi kanseri olgusunu sunduk.

**Anahtar sözcükler:** Safra kesesi karsinomu, laparoskopi, port alanı nüksü

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#### **Introduction**

Cholecystectomy by laparoscopic method has preferred by surgeon for 20 years because it has a comfortable method. Thus, relatively incidental early stage gallbladder carcinoma (GBC) diagnosis has been increased. The incidence of incidental carcinoma of the gallbladder carcinoma after cholecystectomy is (0.25-3%) rare [1-5]. Port site recurrence may develop about in 14% of patients who were performed cholecystectomy by laparoscopy. The incidence of recurrence is higher (40%) when gallbladder perforation develops during the operation [2]. After diagnosis, additional radical surgery may be required depending on the stage of the tumor. In this case, we aimed to present a gallbladder carcinoma diagnosed incidentally after the laparoscopic cholecystectomy due to gallstones and the clinical characteristics of our patient presenting with abdominal wall recurrence.

## Case report

A 62-year-old woman was underwent laparoscopic cholecystectomy at another hospital for symptomatic cholecystolithiasis. The postoperative pathological examination revealed a ruptured gallbladder and an undifferentiated adenocarcinoma of the gallbladder infiltrating the serosa (T2,NX). Additional surgery did not recommend by the surgeon. Two months after the surgery, she admitted to our hospital because of a painful and palpable mass at the scar of the epigastric trocar incision. On the physical examination her performance status was ECOG (Eastern Cooperative Oncology Group) I, and a subcutaneous palpable mass (8x10 cm diameter, solid consistency, semi-mobile, painful and hyperemic) at the site of epigastric port was detected (Figure 1). Laboratory examination showed leukocyte 15250 / $\mu$ l, hemoglobin 11.9 gr/dL, platelet 277000/ $\mu$ l, CEA 52.24 (0-4.3) ng/ml, CA19-9: 5630 (0-37) U/ml, CRP 3.09 (0-8) mg/L. LDH 303 IU (125-240). Abdomen computed tomography (CT) detected heterogeneous lesion which was 4x15 cm and placed anterior abdominal wall and hypodense lesion (1.5x3 cm in size) located at the junction of segment 6-7 at the right lobe of the liver was detected (Figure 2). The other laboratory findings were normal. There was no distant metastasis. Gemcitabine 600 mg/m<sup>2</sup>, cisplatin 30 mg/m<sup>2</sup> (1.15. days) chemotherapy protocol was initiated. Stable clinical and radiological response was achieved after 6 cycles of treatment. Due to detection of progression after 2 months from stable response, the second line chemotherapy (irinotecan, 5-florourasil) was started. But she died after the second courses chemotherapy. The overall survival was 16 months.



Figure1. A metastatic nodule at the site of epigastric port.

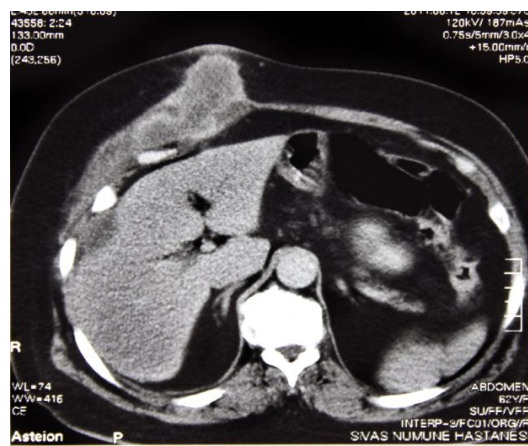


Figure 2. Computed tomography imaging of the liver and subcutaneous metastasis.

## Discussion

GBC which was incidentally diagnosed after laparoscopic cholecystectomy is rare [1-5]. Postoperative clinical and radiological assessment is very important because it leads to local recurrence and lethal outcomes if the diagnosis is overlooked. Patients who were incidentally diagnosed postoperative GBC should be re-evaluated for staging using radiological techniques such as ultrasonography, computed tomography or positron emission tomography (PET-CT). The liver, peritoneum and of orifices of the trocar should be carefully evaluated [6, 7].

The management of incidental GBC is still controversial because no guidelines have been established. Some authors claims that the prognosis will be worse, if the patients weren't adequately treated during the first operation [8]. The simple cholecystectomy may be adequate treatment in cases of early stages. The patients with T2 tumor or more advanced stages of disease, reoperation is recommended [10]. Although our patient was staged as T2 tumor, she hadn't been operated after her first operation. According to Cavallaro et al. [8], laparoscopic cholecystectomy does not affect survival if implemented properly. Currently, the second operation for incidental gallbladder carcinoma should have two fundamental objectives: R0 resection (surgical removal of all the grossly apparent tumor) of the liver parenchyma with the other adjacent structures, and clearance of the loco-regional lymph nodes [11, 12].

Local recurrence after incidentally GBC diagnosis is an important problem. It can be seen along the way of laparoscopic procedure by planting tumor. Port-site metastasis refers to implantation of tumor cells at the skin incisions utilized to place the laparoscopic trocars [8]. It's firstly described by Drouard et al. [9] in 1991 and the others followed up [13-16]. The incidence of port site/peritoneal recurrence after laparoscopic cholecystectomy is ranging from 10% to 18.6% [16-19]. As in our case, it usually occurs among patients with pathologic T2 (pT2) or more advanced tumors [17, 20]. This recurrence generally presents after latency, ranging from a few weeks to 3-4 years [8, 21]. Our patient's latent period was two months.

Many factors can give rise to port-site metastasis. One of the most important of these factors is intraoperative gallbladder wall perforation, which has been described in 30-43% of laparoscopic cholecystectomy cases, and it has been related to port-site metastasis [2, 8, 10, 16, 22-23].

The survival of patients with port-site metastasis is poor. The median survival after port-site metastasis is approximately 12-19 months [2, 8]. It is mandatory to perform resection at the time of re-intervention in patients previously treated with laparoscopic cholecystectomy [11, 12, 24]. Wakai et al. [10]. Reported that the median survival was 37 months, patients with a pT2 tumor undergoing a laparoscopic cholecystectomy alone and 68 months for undergoing a radical second resection. In our case she underwent only laparoscopic cholecystectomy and despite of second line chemotherapy regimen she died 16 months after diagnosis.

Patients with incidental gallbladder cancer after laparoscopic cholecystectomy should be carefully evaluated and monitored in terms of port-site recurrence.

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