

## Gingival Metastasis from Gallbladder Cancer

Te-Sheng Chang, MD; Chuang-Chi Liaw<sup>1</sup>, MD; Kam-Fai Lee<sup>2</sup>, MD;  
Cheng-Shyong Wu, MD

Gallbladder cancer is generally diagnosed at an advanced stage. The liver is the most commonly invaded organ by direct extension and/or metastasis, followed by regional lymph nodes. Oral soft tissue metastasis is extremely unusual. This report describes the case of a 62-year-old woman diagnosed with advanced metastatic gallbladder cancer, who initially presented with abdominal pain. Diagnosis of gallbladder cancer was made about 3 months after her symptoms developed, when a laparoscopic cholecystectomy was performed because of the suspicion of gallstones. Liver metastasis was also discovered during surgery. A postoperative investigation revealed additional lung and bone metastases. A visible left gingival tumor was found on physical examination and was confirmed as gallbladder cancer metastasis by compatible histopathology 1 month after surgery. The patient responded poorly to chemotherapy and unfortunately died 5 months after the diagnosis. The clinical presentation of gallbladder cancer was relatively typical, apart from the unusual gingival metastasis. The medical literature contains quite a few examples of metastatic lesions located strictly in the oral soft tissue, however no case of gallbladder cancer metastasizing to the oral soft tissue has been previously reported. (*Chang Gung Med J* 2002;25:553-6)

**Key words:** gallbladder cancer, metastasis, gingiva.

Gallbladder cancer is an uncommon, but highly malignant tumor with a very low 5-year survival rate. Approximately 1/3 of all patients have widespread metastatic disease at the time of diagnosis, with the liver being the most common site of invasion.<sup>(1,2)</sup> Almost all patients die within 5-6 months after surgery, except those with incidental histopathological findings.<sup>(2)</sup> Metastatic tumors of the oral region are uncommon,<sup>(3-7)</sup> and most are located in the mandible.<sup>(4-7)</sup> This report demonstrates a case of gallbladder cancer with multiple metastases, including the first-reported involvement of the gingiva.

### CASE REPORT

A 62-year-old woman with a diagnosis of

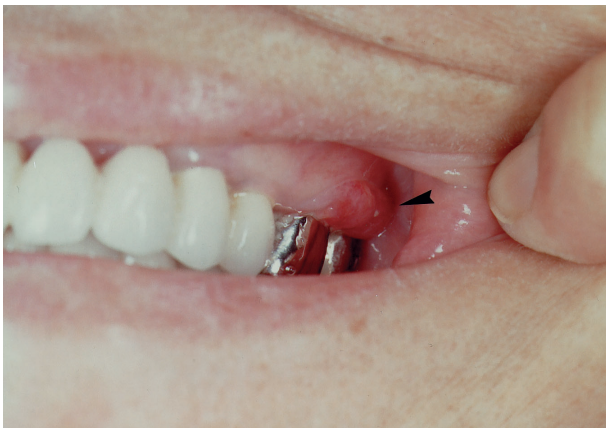
advanced gallbladder cancer with liver, lung, and bone metastases was referred to Chang Gung Memorial Hospital in February 2001. She had been suffering from epigastric pain for 5 months, and a previous hospital's initial study, including abdominal ultrasonography and computed tomography (CT), failed to identify a definite cause for this pain. This symptom persisted until January 2001 when a laparoscopic cholecystectomy was performed to rule out gallstones as the cause of her abdominal pain. Surgery confirmed the presence of gallstones, but gallbladder cancer with liver metastasis was also discovered.

The patient underwent a partial hepatectomy in addition to the cholecystectomy, and pathology revealed poorly differentiated adenocarcinoma.

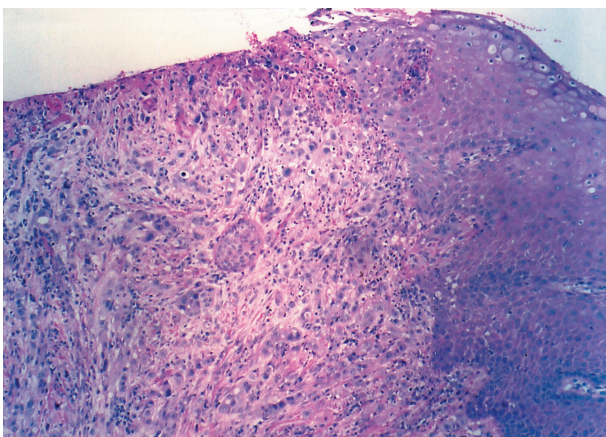
From the Department of Hepato-Gastroenterology; <sup>1</sup>Department of Oncology; <sup>2</sup>Department of Pathology, Chang Gung Memorial Hospital, Taipei.

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Address for reprints: Dr. Cheng-Shyong Wu, Department of Hepato-Gastroenterology, Chang Gung Memorial Hospital, 5, Fu-Shing 6, Sec. West, Chia Pu Road, Pu-Tz City, Chia Yi 613, Taiwan, R.O.C. Tel.: 886-5-3621000 ext. 2005; Fax: 886-5-3623005; E-mail: gi0005@adm.cgmh.com.tw



**Fig. 1** An irregular mass lesion measuring 1.5 ; 0.5 ; 0.3 cm over the left upper molar area found about 1 month after the initial diagnosis of gallbladder cancer (arrow).



**Fig. 2** Light microscopy of the oral tumor, compatible with mucosal metastasis of a poorly differentiated adenocarcinoma from the gallbladder. (H&E stain 100 ; )

Postoperative investigations revealed additional lung and bone metastases.

Following admission to Chang Gung Memorial Hospital in February 2001, a physical examination revealed an irregular mass lesion measuring 1.5 ; 0.5 ; 0.3 cm over the left upper molar area (Fig. 1), and a cranial CT scan discovered an enlarged lymph node in the left submandibular area. An incisional biopsy was performed on the oral tumor, and the pathology was compatible with mucosal metastasis of a poorly differentiated adenocarcinoma from the

gallbladder (Fig. 2). The metastatic gingival lesion shrank slightly after the first course of chemotherapy with 5-fluorouracil, leucovorin, mitomycin C, and cisplatin. However, the patient's condition deteriorated soon after the third course of chemotherapy due to original tumor progression and the appearance of massive right pleural effusion. She died in late April 2001.

## DISCUSSION

Gallbladder cancer is a rarely diagnosed malignancy of the gastrointestinal tract, that varies widely in ethnic incidence, and affects women more than men at a ratio of about 3:1.<sup>(8,9)</sup> It is a tumor of the elderly, occurring most frequently the people in their 70s and 80s. Right upper quadrant abdominal pain is the most common initial symptom, followed by jaundice and weight loss. Tumors are found incidentally in many patients, during a cholecystectomy for cholecystitis and stones as with the case reported herein.<sup>(1,2,9)</sup> Despite improved diagnostic techniques, gallbladder cancer is generally diagnosed at an advanced stage and consequently has a very poor prognosis. A specific diagnosis of gallbladder cancer is made in only about 1/3 of patients prior to surgical exploration.<sup>(10-12)</sup> About 1/3 of cases have widespread metastatic disease at the time of operation, with the liver being the most common site of invasion.<sup>(1,2)</sup> Most patients die within 5-6 months of surgery. The patient in this report already had liver, lung, and bone metastases at the time of the diagnosis, and died within 5 months.

Malignant neoplasms metastatic to oral tissues are rare, representing less than 1% of tumors at this site,<sup>(3-5)</sup> with most involving the jawbone; occurrence in oral soft tissues is exceedingly rare.<sup>(4,7)</sup> Metastatic deposits in oral soft tissues are commonly located in the gingiva or alveolar mucosa, with the tongue being the next most frequently affected site.<sup>(3,7)</sup> Most references in the literature present isolated case reports or series with only a small number of cases.

This type of metastasis is usually a late occurrence, is frequently associated with metastatic deposits in other organs, and is, therefore, an indicator of a poor prognosis. Gingival metastatic lesions may clinically simulate benign reactive lesions and are therefore occasionally misdiagnosed.<sup>(3)</sup> As a result, when any unusual gingival lesion is found,

gastrointestinal tract malignancy must be on the list of potential origins despite its rarity. This is the first report to demonstrate metastatic oral mucosa lesions from gallbladder cancer.

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## 膽囊癌的牙齦轉移

張德生 廖宗琦<sup>1</sup> 李錦輝<sup>2</sup> 吳正雄

膽囊癌是一種罕見的消化系惡性腫瘤，絕大多數病患在診斷時已經有遠處轉移，其中以肝臟轉移最常見，其次是局部淋巴系統；惡性腫瘤轉移至口腔部位的情況亦很少見，且大多是轉移至頷骨，轉移至軟組織者很少，轉移至口腔軟組織者其部位以牙齦較多，其次是舌頭，口腔軟組織轉移一般發生在疾病晚期，病人通常已有其他部位轉移，所以是個不良預後的表現。我們報告一例膽囊癌發生牙齦轉移的罕見病例，病人以腹痛症狀表現，在有症狀3個月後為膽結石施行剖腹膽囊切除術時才意外診斷膽囊癌，但當時已有包括肝臟、肺臟和骨頭的轉移，再經1個月來到我們長庚紀念醫院時，理學檢查發現左上牙齦有一腫瘤，經病理檢查証實為膽囊癌轉移而來；病患對化學治療反應不佳，經三個療程化學治療，但效果不佳，於診斷後5個月內死於原發部腫瘤增長併阻塞性黃疸及大量右肋膜積水致呼吸衰竭。(長庚醫誌 2002;25:553-6)

**關鍵字：**膽囊癌，轉移，牙齦。