

# Hepatectomy for liver metastases from squamous cell laryngeal cancer. Is it worthy?

Case Report

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**Abstract:** Patients with liver metastases from squamous cell head and neck cancer (SCHNC) are usually treated with chemotherapy and are not evaluated for eventual liver-directed treatment. However, the potential benefits from liver surgery for the patients with hepatic-only metastases from SCHNC generally remain undefined. We report a patient with late liver-only metastases from squamous cell glottic cancer treated with resection of the liver metastases followed by adjuvant platinum-based chemotherapy plus cetuximab. The patient died 25 months after resection of the hepatic metastases from widespread hepatic and pulmonary recurrence. The literature data as well as this case demonstrates the capability of liver surgery to prolong survival in patients with hepatic metastases from SCHNC.

**Keywords:** *Head and neck cancer • Liver metastases • Liver resection*

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## 1. Introduction

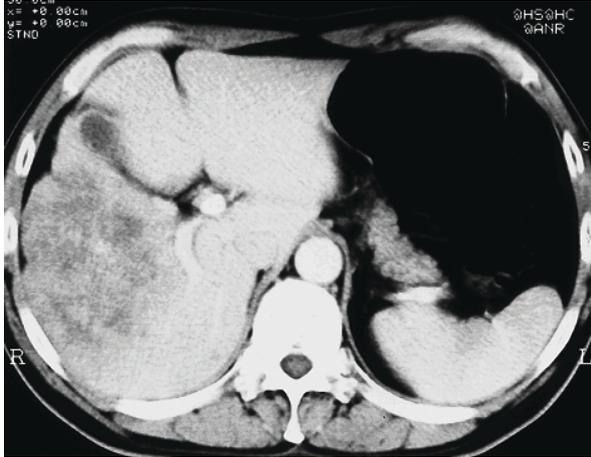
Patients with liver metastases from squamous cell head and neck cancer (SCHNC) are usually treated with chemotherapy and are not evaluated for eventual liver-directed treatment. The response rate to the combination chemotherapy of the patients with recurrent or metastatic SCHNC is in the range of 21%-34%, and the median survival of these patients is usually in the range of 6-8 months [1-3]. More recently, cetuximab, in addition to chemotherapy showed significant improvement with a response rate of 20% to 36% and the median survival from 7.4 to 10.1 months respectively [4]. However, in contrast to locally recurrent SCHNC, which is somewhat sensitive to the treatment with chemo- and/or radiotherapy, the chemotherapy for liver metastases from this type of cancer actually does not offer a real chance for cure of the patients and the radiotherapy of the liver is not useful. We report a patient with late liver-only metastases from squamous cell glottic cancer treated by resection of the metastases.

## 2. Case Report

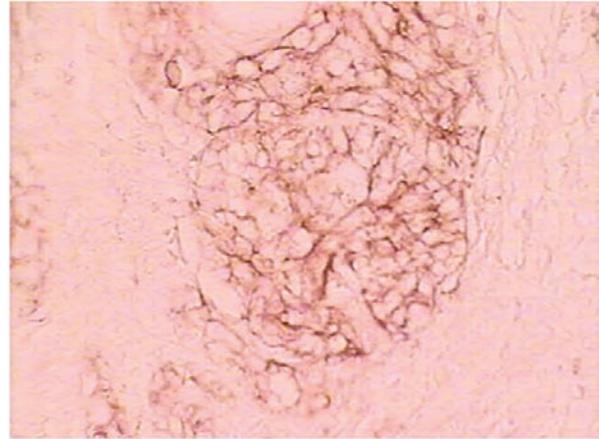
A 48-year-old man was presented with abdominal discomfort and weight loss. Six years before presentation, he had been treated with conservation laryngeal surgery for T2N0M0 squamous cell glottic cancer. A year after the initial operation a laryngeal recurrence and bilateral regional lymph-node metastases had been diagnosed. The patient had undergone salvage total laryngectomy and bilateral neck dissection, followed by adjuvant radiotherapy and platinum- and fluorouracil-based chemotherapy. At admission the physical examination showed a palpable mass in the right upper abdomen and laboratory tests were unremarkable. Contrast-enhanced computed tomography of the abdomen showed a low-enhancing lesion in the right lobe of the liver (Figure 1). Computed tomography of the neck and chest as well as upper and lower gastrointestinal endoscopy excluded extrahepatic disease. At laparotomy, along with the tumor in the right hemiliver, three small metastases were also found in the left lobe of the liver. Right hepatectomy along with metastasectomies of the left-sided lesions

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**Figure 1.** A preoperative CT of the liver – a large low-enhancing lesion in the right lobe is demonstrated.



**Figure 2.** Histology of the resected tumor (original magnification x400) revealed squamous cell cancer with marked EGFR immunostaining.



were performed. Histopathology showed a squamous cell carcinoma with a marked epidermal growth factor receptor (EGFR) staining (Figure 2). The postoperative course was uneventful. The patient received adjuvant treatment with platinum, fluorouracil and the anti-EGFR monoclonal antibody cetuximab for 12 weeks. Twenty months after the operation the patient was asymptomatic; however the routine follow-up computed tomography scans revealed multiple widespread hepatic and pulmonary metastases. He was treated with additional chemotherapy but unfortunately the disease progressed and the patient died 25 months after resection of the hepatic metastases.

### 3. Discussion

The resection of liver metastases of colorectal or neuroendocrine origin is a well-established therapeutic option [5,6]. The ability of hepatic surgery to achieve a long-term survival and eventually a cure in such patients has been demonstrated in numerous published studies. However, the potential benefits from liver surgery for the patients with hepatic-only metastases from SCHNC generally remain undefined. Even the series reporting more than 100 cases of hepatic resection for non-colorectal, non-neuroendocrine metastatic disease usually include  $\leq 5$  patients with liver metastases from primary SCHNC [7-10]. Thus the survival analysis for this group of patients is not calculated in those series due to a small sample size. There are only two published studies [11,12] reporting posthepatectomy survival analysis for the subgroup of patients with liver metastases from SCHNC. The latter publications provide an encouraging message regarding the role of hepatic resection in selected patients with SCHNC metastatic to the liver.

A French multicenter study [11] reports the outcomes of 15 patients after hepatectomy for metastatic head and neck cancer. The median overall survival after liver resection in this report is 18 months, and the 3-year and 5-year survival rates are 24% and 15% respectively. A second multicenter trial [12], including institutions from USA and France, reports 12 patients with liver metastases from SCHNC treated with hepatectomy. It has to be noted that 13 more patients with squamous cell cancer other than SCHNC are included in survival analysis in this study. However on both univariate and multivariate analyses the location of the primary tumor site is not associated with survival. The median overall survival time after liver resection in this trial is 22.3 months and the corresponding disease-free survival is 9.8 months. The 1-year, 3-year, and 5-year actuarial overall survival rates are 74.4%, 27.7% and 20.5% respectively. The corresponding 1-year, 3-year and 5-year actuarial disease-free survival rates are 40.4%, 18.6% and 18.6% respectively. Most of the patients in this study also have received pre- and/or postoperative chemotherapy.

The above-mentioned results are promising, even in the setting of the very limited available data concerning the outcome after hepatectomy for liver metastases from SCHNC. They suggest that there is a subgroup of patients with resectable liver metastases from SCHNC, which can be treated with an opportunity for curing. It seems that a 5-year survival of 15-20% can be expected in patients with liver-only disease amenable to surgery. Hepatectomy on the other hand, can double the median survival rates in those patients from 8-10 months to 18-22 months, compared to the current standard treatment with chemotherapy. Perhaps it is time for medical oncologists and surgeons to carefully

reevaluate the widespread policy and reconsider the liver resection as a viable treatment option for patients with SCHNC metastatic to the liver.

To conclude - data that is currently available for the results of surgical treatment of liver metastases from SCHNC are encouraging. They appear informative

enough to initiate the discussion about changing the paradigm in the treatment of patients with liver-only metastases from SCHNC.

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