



# Three-Year Disease-Free Survival After D2 Dissection and Liver Metastasectomy in a Gastric Cancer Case with Poor Prognostic Factors: A Case Report

## Kötü Prognostik Özelliklere Sahip Mide Kanserinde D2 Diseksiyon ve Karaciğer Metastazektomi Sonrası Gözlenen Üç Yıllık Hastaliksız Sağkalım: Olgu Sunumu

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Received \ Geliş tarihi : 02.04.2015  
Accepted \ Kabul tarihi : 29.04.2015

### ABSTRACT

Although the optimal treatment for hepatic metastasis from gastric cancer is chemotherapy, there are a few reports showing better survival after hepatectomy. Various factors such as depth of invasion, lymphatic invasion, histology, number of metastases, time of metastasectomy and surgical margins for hepatic tumors may be associated with the outcome after hepatic metastasectomy in patients with gastric cancer metastasis. Herein we aimed to emphasize the importance of surgical excision in a patient with gastric cancer who underwent surgery of D2 dissection and liver metastasectomy at the time of diagnosis. Compared to the literature cases, our case had many different poor prognostic factors such as neural/lymphovascular invasion, peripheral tissue invasion, lymph node invasion and the size of the tumor. However, our patient had longer disease-free survival compared to the literature cases.

**Key Words:** Gastric cancer, Hepatic metastasectomy, D2 dissection, Disease-free survival

### ÖZ

Karaciğer metastazı olan mide kanserlerinin optimal tedavisi kemoterapi olsa da hepatektomi sonrası daha iyi sağkalım gösteren bazı yayınlar vardır. Metastatik mide kanserinde hepatektomi sonrası sağkalımı etkileyen farklı faktörler olabilir, örneğin invazyon derinliği, lenfatik invazyon, histoloji, metastaz sayısı, metastazektomi zamanı ve metastazın cerrahi sınırı gibi. Bu olguda tanı anında D2 diseksiyon ve karaciğer metastazektomi uygulanan mide kanseri olgusunda cerrahinin önemini vurgulamayı amaçladık. Literatürle karşılaştığımızda bizim olgumuzda nöral/lenfovasküler invazyon, periferik doku invazyonu, lenf nodu invazyonu ve tümör genişliğinin fazla olması gibi birçok olumsuz faktör mevcuttu. Bunlara karşın bizim hastamızda literatürdeki olgulara göre daha uzun bir hastaliksız sağkalım saptandı.

**Anahtar Sözcükler:** Mide kanseri, Hepatik metastazektomi, D2 diseksiyon, Hastaliksız sağkalım

### INTRODUCTION

Despite decreasing incidence and mortality, gastric cancer (GC) is the second most common cause of cancer-related death worldwide (1). For patients with metastatic GC (MGC), palliative chemotherapy and best supportive care are considered to be the optimal treatment to achieve better survival and palliation of symptoms (2). However, MGC has a poor prognosis with a median overall survival (OS) of <1 year (3, 4). Although the standard treatment for liver metastasis from gastric cancer is chemotherapy, there are several

reports in the literature about better survival following liver metastasectomy (5). In fact, a number of studies have demonstrated that the effects and advantages of liver metastasectomy in gastric hepatic metastases are uncertain (6). Most patients with gastric cancer accompanying liver metastasis are not candidate for potential curative surgery due to the presence of synchronous distant extrahepatic or locally advanced disease (7). Herein we aimed to emphasize the importance of surgical excision in a patient with gastric cancer who underwent surgery for D2 dissection and liver metastasectomy at the time of diagnosis.

## CASE

A 51 year-old-male patient presented to the hospital with dyspeptic complaints approximately three years ago. Upper system endoscopy revealed an ulcero-vegetant mass lesion extending from the cardia to the corpus. Pathological examination identified a well-differentiated adenocarcinoma of the stomach. No distant metastases were present on screening. During intraoperative surgery a mass 5x8 cm in size and invading the transverse colon and pancreas and another metastatic mass in segment 7 of the liver were observed. Total gastrectomy + retrocolic ROUX-Y esophagojejunostomy + distal pancreatectomy + omentectomy + retroperitoneal lymph node dissection + D2 lymph node dissection + splenectomy + transverse colon segmental resection + endwise colo-colostomy and liver metastasectomy were performed for the patient. Pathology results were compatible with a well-differentiated adenocarcinoma with neural/lymphovascular invasion and negative tumor margins for gastric mass and metastatic carcinoma for hepatic mass. Staging was T3N2M1 according to AJCC 2010. The patient received 6 cycles of chemotherapy with ECF (epirubicin, cisplatin, 5-fluorouracil) as adjuvant treatment. After 3 years of follow up without progression, the patient presented with metastatic liver and lung masses. The FOLFIRI (folinic acid, 5-fluorouracil, irinotecan) chemotherapy scheme was planned as second line treatment.

## DISCUSSION

Although some authors have suggested that MGC represents a systemic disease and surgery has no role in its treatment, a considerable proportion of patients have been found to have a better disease-free survival longer than 5 years following liver resection (8). Many factors such as histology, invasion depth, venous invasion for and size of metastasis, time of liver resection and surgical margins may be related with the outcomes following liver metastasectomy for patients with gastric cancer metastasis. (9). Liver metastasectomy from gastric cancer is rarely indicated. Multiple lobe metastases, peritoneal involvement and widespread lymph node metastases or direct invasion to other organs remain a therapeutic challenge for liver resection (10). In Japan, D2 lymph node dissection is recommended for advanced gastric cancer (11); however, this procedure might not have been performed by surgeons as patients have extensive or critical comorbidity. In contrary to the literature, our case had lots of different poor prognostic factors such as neural/lymphovascular invasion, peripheral tissue invasion, lymph node invasion and size of tumor. However, our patient had longer disease-free survival.

## CONCLUSION

Gastric cancer remains a formidable challenge due to high-risk cancer biology and the complex operative and multidisciplinary therapy requirements. Best curative and palliative intent treatment requires balancing surgical treatment with other modality options. R0 resection and extended lymphadenectomy are the operative components with the greatest curative impact. In addition, alternative treatment options such as metastasectomy and cytoreductive surgery should be tried for suitable patients.

## Conflict of Interest

None of the authors of this paper has a financial or personal relationship with other people or organizations that could inappropriately influence or bias the content of the paper.

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