Case Report

Long-term Survival after Gastric Cancer with Liver Metastasis: A Report of Two Cases

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Summary: We have experienced two cases of long-term survival after surgery for gastric cancer case with liver metastasis. One case was of a 66-year-old male patient diagnosed as having type 1 advanced gastric cancer located in the posterior wall of the lower body with liver metastasis. The stage of this case was POH1N1T2M0 stage IV. This patient underwent distal gastrectomy with D2 lymph node resection, partial hepatectomy of the S3 region including the metastatic liver tumor and coagulation of metastatic liver tumors in the S6 and S7 regions. This patient was treated by intra-hepatic arterial infusion of 5-FU, CDDP and peroral administration of UFT after surgery. This patient has died at 3 years and 7 months after surgery. The other case was of a 55-year-old male patient diagnosed as having type 2 advanced gastric cancer located in the lesser curvature of the cardia with liver metastasis. The stage of this case was P0H1N1T3 M0 stage IV. This patient underwent total gastrectomy with D2 lymph node dissection, wedge resection of the S8 region including the metastatic liver tumor and coagulation of a metastatic liver tumor in the S4 region. This patient was treated by obstruction of the hepatic artery using coils, peroral administration of UFT, lentinan, MMC, and continuous low-dosage 5-FU and CDDP after surgery. This patient has died at 3 years and 6 months after surgery. These results suggest that for long-term survival in cases of gastric cancer with liver metastasis, hepatectomy or coagulation of the metastatic tumor with postoperative chemotherapy are indicated in cases that have no non-curative factors and only a few metastatic tumors.

Key words gastric cancer, liver metastasis, long-term survival

INTRODUCTION

The indication for surgical resection is rare in many gastric cancer with multiple metastatic tumors in the liver. Moreover, the non-curative factors in many cases are not only liver metastases but also lymph node metastases and peritoneal dissemination. Therefore, the prognosis for gastric cancer with liver metastasis is very poor. The six-month-survival rate of such cases has been only 20%-50% [1]. However, some authors have reported long-term survival after surgery for cancer with liver metastasis [2,3]. In this article, we report two long-term surviving cases of gastric cancer with liver metastasis.

CASE REPORT

Case 1

A 66-year-old man presented an abnormality in the liver on a routine screening using abdominal ultrasonography (US). The patient was referred to Kurume University Hospital for further examination and treatment on September 18, 1996. On admission, the liver, spleen and tumor were not palpable on physical examination. The serum levels of carbohydrate antigen 19-9 (CA19-9), carcinoembryonic antigen (CEA) and carbohydrate antigen 72-4 (CA 72-4) were normal. Computed tomography (CT)
showed low density masses of 1.3 cm in size at S3, S6 in the liver suggesting metastatic liver tumors (Figs 1a and b). Gastrography and upper gastrointestinal endoscopic examination showed gastric cancer type 1, about 3.0 × 4.5 cm in size, on the posterior wall of the lower body in the stomach. The pathological diagnosis based on a biopsy specimen was poorly differentiated adenocarcinoma. Advanced gastric cancer with multiple liver metastases was diagnosed based on US, CT, gastrography and upper gastrointestinal endoscopy. Surgery was performed on October 1. The operative procedure was distal gastrectomy, with D2 lymph node dissection, Billroth-II method reconstruction, cholecystectomy, partial hepatectomy of the S3 region including the metastatic liver tumor and coagulation of metastatic liver tumors in the S6 and S7 regions. The diagnosis was gastric cancer type 1 [M] and H1, P0, N1, T2, M0 Stage IV. The setting of intra-hepatic arterial infusion of anti-cancer drug system was performed on October 18. Setting of an intra-hepatic arterial tube into the proper hepatic artery with a subcutaneous reservoir in the right lower abdomen was performed. Intra-hepatic arterial infusion of 5-FU 250 mg/day was combined with CDDP 10 mg/week and peroral administration of UFT (300 mg/day) from November 7. At 3 years and 7 months after surgery, the patient eventually died of liver metastasis.

Case 2

A 55-year-old man presented an abnormality in the stomach on a routine screening X-ray examination. The patient was referred to Kurume University Hospital for further examination and treatment on...
February 5, 1996. On admission, the liver, spleen and tumor were not palpable on physical examination. The serum levels of CA19-9, CEA, α-fetoprotein (AFP) and CA 72-4 were normal. Gastrography and upper gastrointestinal endoscopic examination showed gastric cancer type 2, about 5.0×6.0 cm in size, on the lesser curvature of the cardia in the stomach with esophageal invasion. The pathological diagnosis based on a biopsy specimen was moderately differentiated type tubular adenocarcinoma. CT showed ring-like enhanced low-density masses of 2.0×1.8 cm and 1.0 cm in size at S8 and S4 respectively in the liver suggesting metastatic liver tumors (Figs 2a and b). Surgery was performed on February 15, 1996. The operative procedure was total gastrectomy, splenectomy, with D2 lymph node dissection, Roux-Y reconstruction, cholecystectomy, wedge resection of the S8 region including the metastatic liver tumor and coagulation of the metastatic liver tumor in the S4 region. The diagnosis was gastric cancer type 2 [UE] and H1, P0, N1,T3, M0 Stage IV. The obstruction of the middle hepatic artery by five microcoils and of the common hepatic artery by two coils 0.3×2 cm in size was performed on March 13, 1996. Treatment with combined chemotherapy of MMC 6 mg/M, UFT 300 mg/day, lentinlan 2 mg/W was begun from March 19. Moreover, this patient was treated by continuous infusion of 5-FU at 500 mg/day, for 28 days, and infusion of cisplatin at 10 mg/day on days 1-5, 8-12, 15-19, and 22-26 from October 1, 1997. At 3 years and 6 months after surgery, the patient eventually died of liver and lung metastasis.

DISCUSSION

Results after hepatic resection of liver metastases from gastric cancer are rarely reported because of the small number of patients experienced in one institution. The significance of hepatic resection of metastases from colon cancer has been more clearly reported than that from gastric cancer. Several authors [4-6] have reported prognoses after hepatic resection of metastatic tumors from gastric cancer were not good. Bines et al. [7] reported that metachronous resection of hepatic metastasis may show some clinical benefit in survival and quality of life when compared with synchronous resection. Ochiai et al. [8] reported that hepatic resection should be performed in patients with synchronous or metachronous metastases if there is no serosal invasion by the primary gastric tumor, and if the primary tumor has neither venous nor lymphatic invasion in the case of metachronous metastases. Miyazaki et al. [3] suggested that synchronous hepatic resection may be effective if the patient has only a few metastases. Recent advance in the field of chemotherapy can now enable long-term survival of patients with metastatic disease from gastric cancer. But it is still very hard to achieve curativity.

Both our cases underwent synchronous resection of hepatic metastasis; one patient was treated by intra-hepatic arterial infusion of 5-FU, CDDP, while the other patient was treated by obstruction of hepatic artery using coils, continuous low-dosage 5-FU and CDDP after surgery. Akamo et al. [9] recommended hepatic arterial infusion chemotherapy of low-dosage CDDP and continuous 5-FU against liver metastasis. We have already reported that gastric cancer with multiple liver metastases can be effectively held in remission by intra-hepatic arterial infusion of 5-FU and MMC [10]. Surgical resection of liver metastasis when a curative resection is possible and hepatic arterial infusion chemotherapy may prolong survival in gastric cancer with liver metastasis.

REFERENCES

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