Direct invasion to the colon by hepatocellular carcinoma: Report of two cases

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Abstract

Although hepatocellular carcinoma (HCC) is a common tumor, direct invasion of the gastrointestinal tract by HCC is uncommon. Recently, we encountered two cases of HCC with direct invasion to the colon. The first patient was a 79-year-old man who underwent transarterial chemo-embolization (TACE) for HCC 1.5 years prior to admission to our hospital. Computed tomography (CT) showed a 7.5-cm liver tumor directly invading the transverse colon. Partial resection of the liver and transverse colon was performed. The patient survived 6 mo after surgery, but died of recurrent HCC. The second patient was a 69-year-old man who underwent TACE and ablation for HCC 2 years and 7 months prior to being admitted to our hospital for melena and abdominal distension. CT revealed a 6-cm liver tumor with direct invasion to the colon. The patient underwent partial resection of the liver and right hemicolectomy. The patient recovered from the surgery. But, unfortunately, he died of liver failure due to liver cirrhosis one month later. Although the prognosis of HCC that has invaded the colon is generally poor due to the advanced stage of the disease, surgical resection may be a favorable treatment option in patients with a good general condition.

Key words: Hepatocellular carcinoma; Colon; Hepatoma

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INTRODUCTION

Hepatocellular carcinoma (HCC) is one of the most common tumors worldwide[1]. Direct invasion to the gastrointestinal (GI) tract by HCC is uncommon, with a reported incidence of 0.5%-2% among clinical HCC cases[2,3]. GI bleeding or stenosis due to HCC invasion is very uncommon. In such cases, the best treatment remains controversial[4].

Due to improved instruments, techniques, and perioperative management, surgical resection is now safely performed in patients with advanced HCC. Therefore, it is also possible to resect HCC with direct invasion to the GI tract. Here, we present two cases of HCC with direct invasion to the colon that were treated by surgical resection.

CASE REPORT

Case 1

A 79-year-old man with chronic hepatitis C has been followed up since 1983. In August 1998, computed tomography (CT) revealed a 4-cm tumor in the caudate lobe of the liver, which was diagnosed as HCC. The lesion was treated by transarterial chemo-embolization (TACE). In February 2000, the patient underwent TACE and ablation for HCC 2 years and 7 months prior to being admitted to our hospital for melena and abdominal distension. CT revealed a 6-cm liver tumor with direct invasion to the colon. The patient underwent partial resection of the liver and right hemicolectomy. The patient recovered from the surgery. But, unfortunately, he died of liver failure due to liver cirrhosis one month later. Although the prognosis of HCC that has invaded the colon is generally poor due to the advanced stage of the disease, surgical resection may be a favorable treatment option in patients with a good general condition.

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HCC invading the transverse colon was diagnosed and partial resection of the liver and transverse colon was performed. In the resected specimen, a 96 mm × 58 mm liver tumor invading the transverse colon was found (Figure 2). Histopathologic examination of the specimen also showed poorly-differentiated HCC with direct invasion to the colon. The postoperative course was uneventful, and the patient was discharged on postoperative day 21. He survived symptom free for 6 mo and died of recurrent HCC.

**Case 2**

A 69-year-old man has been treated since 2000 for liver cirrhosis due to hepatitis C. In July 2004, CT revealed a 4 cm tumor in segment 6 of the liver, which was diagnosed as HCC. The lesion was treated by radiofrequency ablation (RFA) and TACE. In February 2007, the patient suffered from melena and abdominal distension and was admitted to our hospital. CT revealed that the tumor increased to 6 cm in diameter and directly invaded the diaphragm and the hepatic flexure of the colon (Figure 3). The ascending colon was dilated due to stenosis of the colon. Colonoscopic examination revealed a hemorrhagic and lobulated tumor in the hepatic flexure of the colon (Figure 4). Laboratory tests revealed 2.9 g/dL serum albumin, 1.9 mg/dL serum total bilirubin, 52.1% prothrombin activity, and 17.3% indocyanine green retention rate at 15 minutes, 15 ng/mL serum AFP, and 370 AU/mL PIVKA-2. HCC invading the hepatic flexure of the colon was diagnosed, and partial resection of the liver, right hemicolectomy and partial excision of the diaphragm were performed. In the resected specimen, a 65 mm × 47 mm liver tumor, which invaded the hepatic flexure of the colon, was found (Figure 5). Histopathologic examination of the specimen also showed moderately differentiated HCC with direct invasion to the colon and diaphragm. The patient recovered from the operation, and had no evidence of HCC recurrence, but unfortunately, he died of liver failure due to liver cirrhosis 1 mo later.
In conclusion, although the prognosis of colonic invasion of HCC is generally poor due to the advanced stage of the disease, surgical resection may be a favorable treatment option in patients with a good general condition.

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