CASE REPORT

Pancreaticoduodenectomy for metastatic colonic cancer – report of two cases

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Benefit of resection of metastatic lesions to the liver and lung from colonic cancer is well established. Resection of solitary metastasis of locally recurrent malignancies in the periampullary region has now become the norm, as it increases survival. We present our experience with two patients with metastases in the periampullary region from previously treated colonic carcinoma who were treated with pancreaticoduodenectomy. [Indian J Gastroenterol 2001; 20: 68-69]

Key words: Periampullary tumor, metastasis

Pancreaticoduodenectomy is a well established treatment modality for periampullary cancers, with survival benefit. Metastatic tumors to the periampullary region are rare and account for 1%-3% of all periampullary malignancies; the most common malignancies to metastasize to this site are those of the colon, lung, breast and kidney.

Case Reports

Case 1: A 45-year-old woman had undergone radical right hemicolecction 3½ years ago for adenocarcinoma of the ascending colon. The preoperative CEA level was 12.6 ng/dL. Histology revealed a moderately differentiated adenocarcinoma, Astler-Coller stage C-2. With chemotherapy (5FU and levamisole; Moerel's regime) for 1 year, the CEA level came down to normal range (1.7 ng/dL) and the patient was asymptomatic. One year later, she developed upper abdominal pain and jaundice.

Investigations: hemoglobin 11.1 g/dL, total leucocyte count 8,500x10^9/L, bilirubin 8.2 mg/dL (direct 6.0), alkaline phosphatase 12 Bodansky units, AST 14 IU, ALT 22 IU, serum proteins 7.0 g/dL (albumin 3.2), CEA 28 ng/dL, CA 19-9 absent. Abdominal CT scan revealed mildly dilated intrahepatic biliary radicals; common bile duct diameter of 1.2 cm, and a mass involving the pancreatic head and duodenum. Colonoscopy and duodenoscopy were normal. At laparotomy, an 8 cm x 6 cm x 4 cm mass was seen near the pancreatic head. There was no evidence of liver or peritoneal metastases, nor were there any significant peripancreatic nodes. Whipple's pancreatic-duodenectomy with extended lymphadenectomy was done.

Histology revealed metastasis from moderately differentiated adenocarcinoma of colon; the lymph nodes were negative for metastasis. Immunohistochemistry for CEA was positive. She received 3000 rads to the tumor bed as adjuvant therapy. The patient is doing well at follow up 20 months later.

Case 2: A 52-year-old man had been operated on 1½ years ago for adenocarcinoma of the hepatic flexure of the colon. The preoperative CEA level was 26 ng/dL, which decreased to 1.3 ng/dL 6 weeks later. Histology revealed a node-negatiive, well-differentiated mucin-secreting adenocarcinoma of the colon, Astler-Coller stage B-2. One year later, he developed pain in the right hypochondrium; CEA levels rose to 70 ng/dL. Clinical examination revealed a fixed lump in the right hypochondrium. The liver was not palpable and there were no ascites.

Investigations: Hemoglobin 8.5 g/dL, total leucocyte count 7.400x10^9/L, bilirubin 0.5 mg/dL, alkaline phosphatase 2.5 KA units, serum proteins 6.3 g/dL (albumin 3.2), CEA 125 ng/dL. X-ray chest and abdomen were normal. CT scan revealed an 11 cm x 10 cm x 8 cm mass, involving the gastric antrum, duodenum and a few small bowel loops. Liver and spleen were normal; no lymphadenopathy or ascites was noted. Duodenoscopy revealed a mass involving the pylorus and duodenum up to its second part and evidence of fecal matter from a possible small bowel fistula. This was confirmed on a follow-through barium examination. Colonoscopy was normal.

Laparotomy revealed a large tumor mass involving the pyloric antrum and duodenum up to its third part.

Fig: Resected specimen (Case 2)
and a fistulous communication with the distal ileum. The ileocolic anastomosis was normal. The liver was normal and there was no evidence of any distant metastasis or ascites. In view of localized disease, a Whipple pancreaticoduodenectomy with extended pancreatic lymph node clearance and wide resection-anastomosis of the involved ileum were performed (Fig). Histology revealed moderately differentiated mucinous adenocarcinoma of the colon, all the resected margins and the lymph nodes being negative. At 4-month follow-up, after chemotherapy (irinotecan 500 mg, 3-weekly for 3 cycles) and radiotherapy with 3000 rads to the tumor bed, CEA level was 2.2 ng/dL.

Discussion
In recent years, there has been a substantial decrease in in-hospital mortality and morbidity after pancreatic resection, with several series reporting mortality rates of less than 5%. With this, the indications for pancreaticoduodenectomy have expanded to include treatment of chronic pancreatitis, islet cell neoplasms and cystic lesions of the pancreas, and metastatic lesions to the periampullary region. Complete clearance of the tumor was associated with mean survival of 12 and 14 months in two series. Le Borgne et al. reported a mean survival of 26 months. Curley et al. reported pancreaticoduodenectomy for colonic tumors directly invading the duodenum or the pancreas and showed prolonged survival for these patients.

In general, metastasis from distant primaries to the pancreas is associated with widespread disease. However, in a select subgroup with metastasis to the peripancreatic region as the sole site of metastasis, resection may render the patients disease-free. These patients may achieve a significant survival period after resection. Most such metastatic tumors are node-negative in spite of their large size, as was observed in both our patients.

References

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