A Case of Synchronous Double Cancers of the Pancreas and Stomach

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Summary: Pancreatic cancer carries a poor prognosis, especially invasive ductal carcinoma of the pancreas. We present here the case of a 76-year-old man who developed synchronous double cancers of the stomach and pancreas. He was referred to our hospital in December, 1997, with a provisional diagnosis of carcinoma of the stomach. Laboratory data on admission showed normal levels except for the serum carcinoembryonic antigen level. Abdominal ultrasonography revealed a low echoic mass anterior to the pancreas, suggestive of a nodal metastasis. Intraoperative histological findings from the pancreatic nodule confirmed a primary pancreatic cancer. The diagnosis of double cancers of the stomach and pancreas was made, and subtotal gastrectomy and distal pancreatectomy with lymphnodes dissection were carried out. The histologic sections from the stomach showed a moderately differentiated tubular adenocarcinoma, whereas those from the pancreas showed a well to moderately differentiated tubular adenocarcinoma. Double carcinomas in this association are relatively rare.

Key words double cancer, pancreatic cancer, gastric cancer

INTRODUCTION

Pancreatic cancer has a poor prognosis. Recent improvement in the prognosis of cancer patients has led to an increase in the incidence of second primary cancers, and the frequency of multiple primary malignant tumors is expected to increase as the population ages. We report here a case of gastric cancer associated with pancreatic cancer and review the literature.

CASE REPORT

The patient was referred to our hospital in December, 1997, with a diagnosis of the gastric cancer. Laboratory data on admission showed an abnormal level of CEA (5.5 ng/ml). An upper gastrointestinal series and gastroendoscopy demonstrated an ulcerative polypoid tumor in the upper gastric angle (Fig. 1a), and a biopsy from the lesion confirmed the findings of tubular adenocarcinoma. Abdominal ultrasonography revealed a low echoic mass anterior to the pancreas, suggestive of a nodal metastasis, however, we could not detect a pancreatic tumor by abdominal computed tomography (Fig. 1b). During laparotomy, the gastric tumor was found to be at an advanced stage and the low echoic mass anterior to the pancreas was discovered to be within the body of the pancreas. Intraoperative histological findings from the pancreatic nodule confirmed a primary pancreatic cancer. The patient was subsequently diagnosed as having double cancers of the stomach and pancreas. Subtotal gastrectomy and distal pancreatectomy with lymphnodes dissection were carried out. The resected specimens from the stomach showed a moderately differentiated tubular adenocarcinoma, whereas those from the pancreas showed a tubular adenocarcinoma of well to moder-
ately differentiated type (Fig. 1c). The conclusive stage of the gastric cancer was stage Ib \( [I_b, \, n_0, \, P_0, \, H_0, \, INF_\beta, \, ly_2, \, v_1, \, aw(-), \, ow(-)] \) [1], while that of the pancreatic cancer was stage I \( [TS1, \, n_0, \, P0, \, H0, \, rp_0, \, ne_0, \, ly_1, \, v_1, \, scirrhous \, type, \, mpd(+), \, pw(-)] \) according to UICC TNM classification [2]. The patient’s postoperative course was uneventful. However, he was readmitted with leukemia and died of the clinical manifestation of gastrointestinal bleeding 13 months after his initial operation. Autopsy was not performed in accordance with the wishes of his family.

**DISCUSSION**

The frequency of multiple primary tumors among all cases of malignancy has been reported as 1% - 3% [3,4]. The most frequent combination among multiple primary malignancies involves the stomach and other organs, accounting for 58%-73.3% of the overall incidence [4,5]. However, gastric cancer associated with pancreatic cancer is estimated to comprise only 3.8% of all cases of gastric cancer associated with carcinoma of other organs. On the other hand, the frequency of pancreatic cancer in association with cancer of other organs is estimated to range from 7.3% to as high as 16.7% [6-8]. There were many reported cases of double cancers of the gastrointestinal tract, however, reported cases of double cancer including pancreatic cancer are relatively rare [9-11]. Incidence of pancreatic cancer associated with other organ malignancies was 1.2% to 20.0%.
TABLE 1.  
Incidence of pancreatic cancer associated with other organ malignancies

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamisawa et al.</td>
<td>1993</td>
<td>16.6%</td>
</tr>
<tr>
<td>Makino et al.</td>
<td>1984</td>
<td>5.6%</td>
</tr>
<tr>
<td>Yoshimori et al.</td>
<td>1982</td>
<td>10.8%</td>
</tr>
<tr>
<td>Maruchi et al.</td>
<td>1979</td>
<td>20.0%</td>
</tr>
<tr>
<td>Cubilla et al.</td>
<td>1978</td>
<td>17.0%</td>
</tr>
<tr>
<td>Kasumi et al.</td>
<td>1977</td>
<td>7.3%</td>
</tr>
<tr>
<td>Moertel et al.</td>
<td>1961</td>
<td>3.1%</td>
</tr>
<tr>
<td>Warren and Gates</td>
<td>1932</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

(Table 1) [3,6-8,12-15].

There are no reported cases in which a diagnosis of malignant tumor was made after surgical treatment for pancreatic cancer. Long life survival is rare in patients with pancreatic cancer because of its malignant character.

Our patient was very fortunate because he had no distant metastasis and the diagnosis of pancreatic cancer was made at an early stage. Generally, the prognosis seems to be better in patients such as ours who are diagnosed with pancreatic cancer intraoperatively, rather than preoperatively, because the cancer tends to be discovered at an early stage.

In conclusion, if he had not developed leukemia the present case may have been expected to have a good clinical course because both the gastric and the pancreatic cancers were at an early stage.

Pancreatic cancer has a very poor prognosis and is associated with a short life survival. Therefore, the prognosis of patients with double cancers including pancreatic cancer depends mainly on that of the pancreatic carcinoma.

We report here a rare case of synchronous double cancers of the stomach and pancreas, and review the literature.

REFERENCES