





A rare tumor of the pancreas: Anaplastic carcinoma

Pankreasın nadir bir tümörü: Anaplastik karsinom

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Abstract

Anaplastic carcinoma of the pancreas is rarely encountered and usually reported as case reports in the literature. Anaplastic carcinoma is prognosed worse than ductal adenocarcinomas of the pancreas. The effectiveness of chemotherapy and radiotherapy is controversial in the treatment progress. Basic treatment is curative surgery. We aimed to present the management of a case with pancreatic anaplastic carcinoma in which a mass detected at the head of the pancreas and was performed "Whipple" procedure.

Keywords: Anaplastic carcinoma, surgical treatment, prognosis, pancreas.

Öz

Pankreasın anaplastik karsinomu oldukça nadir karşımıza çıkmakta olup literatürde genelde vaka bildirimleri şeklindedir. Anaplastik karsinom pankreasın duktal adenokarsinomlarından daha kötü prognozludur. Tedavisinde kemoterapi ve radyoterapinin etkinliği tartışmalıdır. Temel tedavisi küratif cerrahidir. Biz burada sarılık yakınmasıyla tetkik edilen ve pankreas başında kitle saptanıp "Whipple" prosedürü uyguladığımız pankreas anaplastik karsinomlu bir olgunun yönetimini sunmayı amaçladık.

Anahtar Sözcükler: Anaplastik karsinom, cerrahi tedavi, prognoz, pankreas.

Introduction

Anaplastic carcinoma of the pancreas (PAC) is known as undifferentiated carcinoma and encountered as different cell types of ductal adenocarcinoma of the pancreas. Anaplastic carcinoma of the pancreas is rarely seen among other histologic types of the pancreatic carcinomas and is reported to represented 0.8% to 5.7% of all exocrine tumors of pancreas (1). There are different names of PAC including undifferentiated carcinoma, pleomorphic carcinoma, pleomorphic giant cell carcinoma, anaplastic carcinoma, osteoclast-like giant cell sarcomatoid tumor, osteoclastoma and undifferentiated carcinoma with

pleomorphic giant cells and mixed osteoclast (1, 2). Because of its rarity, usually case reports or case series exists in the literature (2-5). This tumor has usually cystic structure and closely related to the surrounding tissues and mostly diagnosed at an advanced stage. For this reason, its prognosis is worse than ductal adenocarcinomas of the pancreas. The effectiveness of chemotherapy and radiotherapy is controversial in the treatment progress (6).

We aimed to present the management of a case with PAC in which a mass detected at the head of the pancreas and performed "Whipple" procedure.

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Case Report

A 78-year-old male patient complaining of jaundice had been examined and there was a total icterus of entire body. The gallbladder was palpated in the examination of the abdomen. In laboratory tests the results were: hemoglobin 11.5 g/dL, white blood cell 7.300 mm³, total bilirubin 22.11 mg/dL, direct bilirubin 11 mg/dL, gamma glutamyl transferase 458 U/L, alkaline phosphatase 582 U/L, aspartate transaminase 180 U/L, alanine aminotransferase 152 U/L, carcinoembryonic antigen 2.7 (0-3.4) ng/ml, carbohydrate antigen (CA) 19-9 433.4 (<39) U/ml. Other laboratory findings were normal. In radiological imaging: choledoc was approximately 2 centimeters wide and all intrahepatic and extrahepatic biliary tracts were larger than normal size. In the distal segment, choledoc was narrowed down as a pen tip. There was also a mass of approximately 15 millimeters in the head of the pancreas. Metastasis was not detected in the distant organ scan. With these findings, ERCP was planned for the case. However, choledoc could not get cannulated in two consequent ERCPs. Percutaneous transhepatic cholangiography could not get performed for the case and because of the excessive bilirubin elevation and deteriorating of general condition, "Whipple" operation performed for the case. Histopathology was reported as anaplastic carcinoma of the pancreas (undifferentiated) (Figure-1). Furthermore, the tumor showed a solid growth pattern with squamoid appearance and giant cells in some areas. In addition to that, carcinomatous metastases were detected in two of the eight dissected lymph nodes. Tumor size was 2.4x2.1x1.5 centimeters. Lymphovascular invasion was not detected, but perineural and neural invasion was seen. CK (+), CK19 (+), CK20 (-), e-cadherin (-), synaptophysin (-), chromagranin (-), p53 90% (+) and Ki-67 20% (+) was detected.

Oral treatment was started to the case on the third postoperative day. The case which tolerated oral treatment began to nausea and vomit on the twelfth day. Gas and feces discharge was decreased. Upon the start of the abdominal distension, the case began to be followed with a nasogastric tube. After following approximately 10 days, general condition did not get improved and ileus status was consisted. Therefore laparotomy was performed on the 22nd postoperative day. No

pathology was observed in the anastomoses and in the old surgical site. 7-8 centimeters of the small intestine segment of 15 centimeters to the ileocecal valve was made of gato formation, severely narrowed and adhered to the retroperitoneum. The feeding of the intestinal segments was collapsed in some places, but necrosis was not observed. All the small intestinal segments proximal to this region were extremely dilated. "Loop ileostomy" was performed to the case. After the second surgical procedure, the patient was discharged without any problems on the 11th postoperative day.

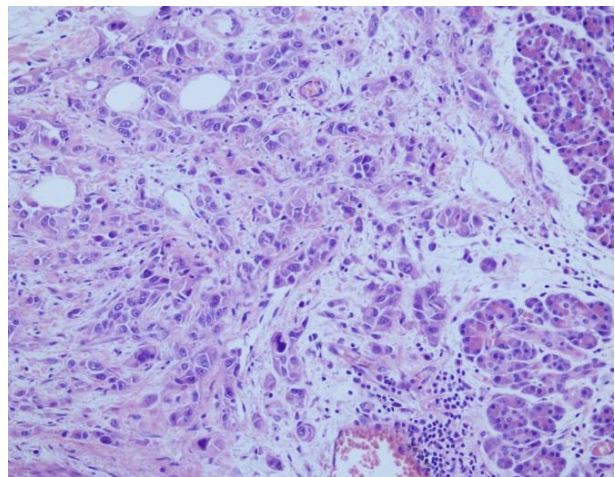


Figure-1. Tumor with anaplastic findings on the left side and normal pancreatic tissue on the right side (Hematoxylin & Eosin, x200).

The stage of the case was IIB (T3N1M0) according to the UICC TNM staging system. The case was discussed at the oncology council and applied 6 cycles of adjuvant gemcitabine regimen (gemcitabine 1000 mg / m² d1,8,15 every 28 days). CapeOx regimens (capecitabine 2000 mg / m² d1-14, oxaliplatin 130 mg / m² d1) was started to use when two metastatic lesions developed in the liver at the sixth month follow-up. However, due to the intolerance, the patient gave up the treatment with his own request at the second cure. The patient died of disease progression two months after the metastatic site. Written informed consent was obtained from the patient for publishing the individual medical records.

Discussion

Anaplastic carcinomas are usually diagnosed with peripheral organ invasion and advanced stage. PAC is often seen in male patients and the majority of them are located in the head of the pancreas. Intratumoral hemorrhage and necrosis occur because of the rapid growth of the tumor. For this reason, severe anemia and high leukocyte count are frequently seen in these cases (5). Anemia and leukocytosis were not seen in our case. The small size of the tumor was thought as the reason. Although CEA and CA19-9 generally show an increase in pancreatic ductal adenocarcinomas, PAC does not have the same level of increase (4). Strobel et al. (4) found that CEA elevation in 19% of the cases and CA19-9 elevation in 14% of the cases in their study. Also, in the study that Hoshimoto et al. (5) analyzed 60 cases reported in Japanese literature. They found CA19-9 elevation level only 55% of the cases. In our case, CEA was normal but CA19-9 was approximately 11 times more than normal level.

Clinical features of anaplastic carcinoma have been reported in the literature. These tumor-induced clinical symptoms are similar to the symptoms induced by adenocarcinoma of the pancreas such as abdominal pain, fatigue, jaundice, weight loss, anorexia and backache and none of them are specific (3, 6). In imaging studies, anaplastic carcinomas are usually detected as intermediate hypervascular and exophytic tumors with extensive necrosis areas (3). Abdominal pain, jaundice and anorexia existed in our case. Radiologically, the tumor was detected as a solid lesion in the distal choledoc-pancreas junction.

Pancreatic cancers are associated with increased surgical morbidity (4). Interestingly, we encountered with early ileus in our case. Since there are mostly case reports and case series in literature for PAC and there are no studies on surgical complications, we could not discuss this complication with the literature.

Median survival is usually measured in months (7). Strobel et al. (4) found that median survival of pancreatic adenocarcinoma was 15.7 months and PAC was 5.7 months in the study which is comparing ductal and anaplastic carcinoma. In addition, in this study median survival was 7.1 months in cases of curative surgery performed and

2.2 months in cases of palliative surgery performed. If there is a chance of curative resection in these cases, it should be applied unconditionally. Because curative resection remains the only option with the possibility of being effective to the median survival (4). Clark et al. (1) reported that in the population based study which analyzed 6212 pancreatic cancer (5859 pancreatic ductal carcinoma and 353 PAC); PAC is more common in males, tumor size is bigger and curative surgery can be performed only 23% of PAC cases. In this study, median survival was three months in PAC whereas it was 11 months in ductal carcinoma. In addition, when PAC was evaluated according to subgroups; two years survival rates were 20% in the giant cell group and 50% in the osteoclast-like giant cell group. Furthermore, five years survival rates were detected 50% in the osteoclast-like giant cells groups and under 10% in the other groups. For this reason, osteoclast like giant cells groups must be kept separate from other groups (1). Paal et al. (2) reported a short median survival of 5.5 months in another series of 35 cases. In our study, despite of R0 curative surgery implementation, liver metastasis had occurred at sixth month. After surgery, adjuvant chemotherapy such as cisplatin, paclitaxel and gemcitabine are applied. Although radiotherapy can be used in selected cases such as presence of bone metastasis and positive surgical margin, the use and standardization of chemotherapy and radiotherapy could not have get determined (8). Only chemotherapy applied to our case. However, radiotherapy was not considered due to the absence of positive surgical margin and bone metastasis.

As a conclusion; radical surgical resection with negative surgical margin is the most effective treatment for pancreatic anaplastic carcinomas. It should be kept in mind that unexpected problems may arise during the postoperative period after PAC surgery. Because of very short median survival and the fact that the standard treatment regimens are not optimized. It is necessary to acquire in the literature in order to plan the future for these cases.

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