Case Report

Pancreatic Head Adenocarcinoma: a case report

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Abstract

Pancreatic adenocarcinoma is a very common type of pancreatic cancer that refers to the exocrine part of the organ. Such disease is connected with low prognosis and especially low survival rates in patients presenting with metastatic sites. In this report, we present a case, where a male patient was diagnosed with pancreatic head adenocarcinoma, with also presenting metastatic sites later on. Following a pancreaticoduodenectomy, provision of FOLFIRINOX and TIPS placement, the patients remained stable. Optimal method of treatment is still not decided, despite recent studies experimenting with chemotherapy and surgery.

Key words: Adenocarcinoma, Metastasis, pancreatic head adenocarcinoma

Introduction

In general, pancreatic adenocarcinoma is classified under the broad category of exocrine pancreatic cancer (1). Pancreatic cancer is responsible for roughly 4% of all total deaths, while also being the seventh leading cause of cancer deaths (2).

Pancreatic head adenocarcinoma is considered to be a very aggressive malignancy, with a relatively low survival rate. This type of cancer presents a variety of difficulties, including possible lymph metastases and vascular involvement. (3). Unfortunately, the majority of patients does not present symptoms in the early stages of the disease, which delays the process of diagnosis. Surgery is considered to be the only option for long-term survival. Despite this, prognosis still remains poor, with a five-year survival rate after resection at approximately 30% (4). While pancreatic metastatic cancer has an even lower survival rate of just 5%.

Case presentation

A 38-years old Caucasian male was diagnosed with jaundice and a pancreatic head Adenocarcinoma. Following the pancreaticoduodenectomy, classic Whipple, pathology revealed a T2N1M0, moderately differentiated adenocarcinoma. Thus, he patient was treated with 8 cycles of FOLFIRINOX.

2 years after the initial treatment, the patient was diagnosed with 2 liver metastases, which responded to chemotherapy. The increase of liver enzymes led to the modification of chemotherapy regiment and the provision of abraxam/hemcar.

One month later, the patient was diagnosed with moderate ascites and Gastrointestinal (GI) bleeding. A thorough workup of upper and lower endoscopy, Computed Tomography (CT) angiography and radiolabeled erythrocytes was executed. These tests revealed jejunal pooling of erythrocytes without contrast extravasation. Moreover, portal stenosis with thrombosis of the Superior Mesenteric Vein (MSV) at the splenoportal junction was documented. Therefore, a Transjugular Intrahepatic Portosystemic Shunt (TIPS) was placed *(Figure 1, Figure 2, Figure 3).* Following this, the patient tolerated the procedure well and remained stable with bleeding and ascites under control.

Figure 1: TIPS Placement

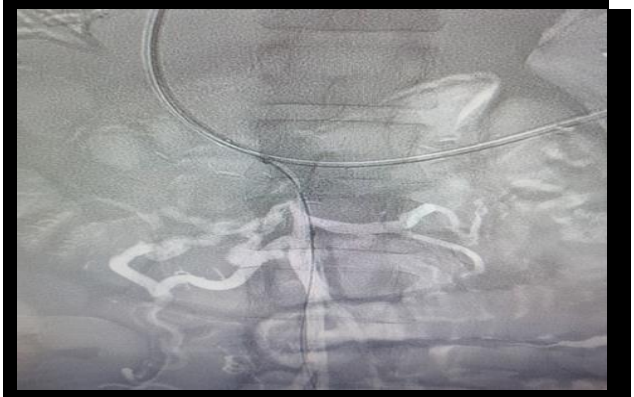

Figure 2: TIPS Placement

Discussion

Pancreatic head adenocarcinoma makes up the majority of all pancreatic neoplasms. It still remains a very dangerous disease with high morbidity and poor prognosis. Risk factors include cigarette smoking, chronic pancreatitis, diabetes mellitus and obesity among others (5). Unfortunately, this type of cancer has a high metastatic potential, while metastatic pancreatic adenocarcinoma has a significantly small five-year survival rate of 3% (6).

Process of diagnosis can be proved to be challenging. Lab tests are, in most cases, no-specific, though increased liver tests suggest biliary obstruction. Cancer-associated antigen is considered to be the most useful in diagnosis, as well as the monitoring of response to treatment (4).

It is important to note that in the case of pancreatic adenocarcinoma metastasis to the liver, the primary tumor is highly similar to the liver metastasis. Genomic analysis has also proved that the mutation spectrum between these two tumors are also similar, impacting almost identical genes (KRAS, TP53). Patients who have presented liver metastasis have worse prognosis compared to other metastatic sites. After the onset of metastasis, surgical resection is not applied, while chemotherapy, like FOLFIRINOX, and other treatments are used (7). Recent studies are exploring the efficacy of perioperative or preoperative chemotherapy for pancreatic adenocarcinoma liver metastases (8).

Figure 3: TIPS Placement

Conclusion

Pancreatic adenocarcinoma is a common gastrointestinal malignancy, related to a poor prognosis. This challenging disease becomes even more demanding after the presentation of metastatic sites. There is still a lot to learn about the ideal treatment for these cases that will ensure the best results for the patient.

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