Case Report

Isolated Pancreatic Metastasis from Locally Advanced Gastric Carcinoma: A Case Report

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Abstract

Background*: Though rare, pancreas may occasionally serve as a favoured target from metastasis. Metastatic lesion of pancreas have been described for groups of primary origins, including gastric malignancy. Even after neoadjuvants, the surgery still remains a bonafide challenge.*

Case Presentation: *We report a 54-year-old male with epigastric pain, anorexia and trifle weight lossin one month. Whipple's with partial gastrectomy was advocated for gastric adenocarcinoma with pancreatic metastasis. Histopathology reports depicted metastasis to pancreatic head and in regional lymph nodes.*

Conclusion: *Gastric malignancies may metastasize to unusual sites and even neoadjuvants may be inadequate to aid surgeon in his job. Radical resection gives better prognosis in addition to early diagnosis.*

Key Words:
Gastric neoplasm, pancreatic metastasis, adenocarcinoma, neoadjuvant.

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Background

Primary malignancies rarely metastasize to pancreas for obvious reasons.[1] Despite this, post-mortem findings depicts the prevalence of pancreatic metastasis to be as high as 6% to 11%.[2] A group of sarcomas, renal cell carcinomas and bronchogenic carcinomas have been reported to invade pancreas in the long run.[3] This article presents the case of a pancreatic metastasis from diagnosed gastric adenocarcinoma. Systemic chemotherapy is the standard treatment for metastatic gastric cancer. Recently, there have been some reports of curative surgery in cases where systemic chemotherapy is not effective[4]. However, the indication of surgery, optimal regime, and courses of chemotherapy, and the extent of lymph node dissection in conversion surgery are controversial clinical issues.[5] In the present case, we performed partial gastrectomy with Whipple's procedure due to ineffectiveness of neoadjuvant chemotherapy and involvement of pancreatic head without any metastasis of liver.

Case Presentation

A 54-year-old male individual presented to us with the complaints of epigastric pain for one month with anorexia and a weight loss of about 5 kg in one month. On examination, he was mildly anaemic, lean and thin, abdomen was soft and no mass was found. Routine blood investigations revealed mild anemia. Differential counts were within normal range. Patient was advised for upper GIT endoscopy which revealed an antral growth suggestive of carcinoma stomach and biopsy was taken from the edge of the lesion. Histopathology of gastric antral tissue suggested adenocarcinoma grade II.USG of whole abdomen reveals thickened pyloric antrum where as CT scan of abdomen shows malignant infiltrative growth involving pylorus of the stomach with exophytic extension of the lesion into posterior perigastric and peripancreatic fat planes and infiltration into perigastric fat planes and regional lymphadenopathy.

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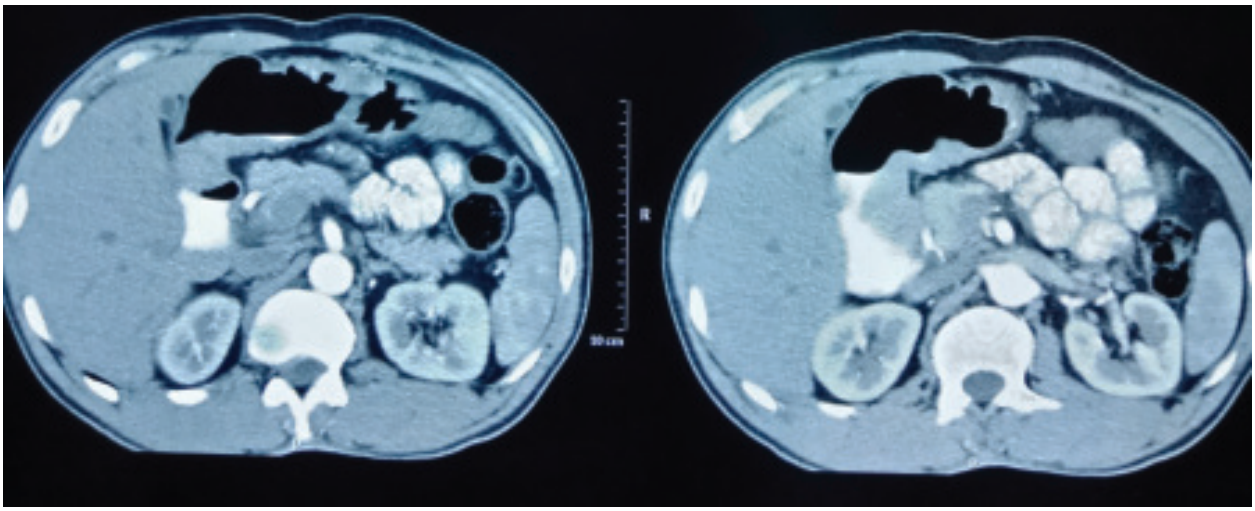

Fig.-1: *CT Abdomen of Carcinoma stomach with Pancreatic metastasis (Image courtesy: Dr. Rajib Dey Sarker 2020)*

Patient received three cycles of neoadjuvant protocol. With proper preparation, surgery was progresses and partial gastrectomy was followed by Whipple's procedure.

For differential diagnosis, a primary carcinoma of the pancreas and a metastasis of the gastric carcinoma were con-sidered. Following explorative laparotomy with a midline incision, the pancreaticmass was resected performing a partial pancreatoduo-denectomy with resection of the distal bile duct (Whipple's procedure). On histopathologic examination, the tumor of the pancreatic headgrossly presented as white to yellowish firm mass. Microscopically, the tumor consisted of solid and glandular formations of atypical epithelial cells with distinct nuclearpleomorphism and presented marked desmoplastic stromal reaction, as well as areas of necrosis as described by histopathologist.

Because of these findings and due to the lack of pancreatic cancerprogenitor lesions, pancreatic intraepithelial neoplasias (PanINs) within the non-neoplastic pancreatic tissue of the Whipple's resection specimen, the pancreatic tumor and the two regional lymph node metastases were considered to be metastases of the primary gastric carcinoma. The patient was discharged from the hospital without any perioperative morbidity on the ninth postoperative day. The postoperative blood levels of the tumor markers declined to normal values (CEA 2.6 µg/l, CA 19.9 24 U/ml). Due to the complete surgical resection and the lack ofrisk factors for recurrence, the patient received no furtheradjuvant therapy.

Fig.-2: *Resected Specimen of Whipple's Procedure (Image courtesy: Dr. Rajib Dey Sarker 2020)*

Discussion

This case left a great lesson for the surgical team. We know, death from recurrence of gastric adenocarcinoma occursin 70–75% of patients during the first two years after surgical intervention. However, reports of recurrences morethan 10 years after primary diagnosis have been reported as well[4]. The most frequent sites of tumor recurrencesinclude local, regional and peripheral lymph nodes, aswell as the liver, the lungs, and the peritoneum.[5]

Furthermore, solitary metastasis in other organs, such as thethyroid gland or the spleen have been described[6,7].

Incontrast to direct infiltration into the pancreas, metastasesof gastric cancer into the pancreas are considered to beextremely rare and to our knowledge very few cases have been reported to journals of Bangladesh.

Adenocarcinomas of the pancreas and of other primarysites frequently display a large histomorphological and immune-histochemical overlap. Thus the differential diagnosis of primary pancreatic cancer versus solitary metastases of other adenocarcinomas may be very difficult if not impossible, using common pathological and immunohistochemical techniques.

According to Robbins, solitary pancreatic masses can be classified as secondary tumors to the pancreas in only 2% of the cases[3], andthey are frequently misdiagnosed as primary pancreaticcancers. As a consequence from this, the subtle diagnosticwork-up for isolated masses in the pancreas needs to inherit a meticulous elaboration of the medical history ofthe patients, in particular focused on previous non-pancreatic malignancy.

Pancreatic resections can nowadays be performed withlow morbidity and mortality rates, in particular in high-volume centers.[11,12] Results of surgical extirpation ofisolated metastases to the pancreas from various primarytumors provide improvement with regard to long term survival.[1,2] Therefore, a resection of isolated metastasesin the pancreas should be considered as a treatmentoption in patients with the history of non-pancreatic malignancy.

Competing Interest

The authors and coauthors declare that they have no competing interest.

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