

Metachronous solitary pancreatic metastasis from renal cell carcinoma- A case report

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ABSTRACT

Common sites of metastatic renal cell carcinoma (RCC) are lymphnode, lung, bone, adrenal, liver, opposite kidney and brain. Pancreas represents an uncommon site of metastasis in RCC. Here we present a case of 52 year old man, who underwent radical nephrectomy for RCC five year back. Recently evaluated for cause of pain abdomen since 20 days, radiological examination revealed 5 cms solitary mass lesion in head of pancreas without evidence of local recurrence of RCC. Pancreaticoduodenectomy was done without pre-operative tissue diagnosis. Resected specimen biopsy gave clue of metastatic solitary clear cell carcinoma (variant of RCC) of head of pancreas. Patient did not survive due to anastomotic leak.

Key words: pancreas, carcinoma, metastasis, renal cell carcinoma, clear cell carcinoma

INTRODUCTION

Pancreatic malignancy has poor prognosis because at the time of diagnosis it may involve regional lymphnode and adjacent structures. This is especially true in case of primary malignancy of pancreas. Secondary metastatic pancreatic malignancy carries better prognosis. Scrutiny of autopsy reports of 320 cases of RCC, reveals that renal cell carcinoma usually lead to a solitary pancreatic metastasis, whereas multiple pancreatic metastasis are uncommon.¹ Distinction between clear cell primary pancreatic tumor and metastatic deposits of clear cell within pancreatic parenchyma may lead to clinical and pathological diagnostic difficulties. The clinical presentations of a solitary pancreatic mass simulate a pancreatic primary tumor whereas metastatic RCC to the pancreas is diagnosed radiologically. Usually there is no retro-pancreatic fat obliteration. When it is present the obliteration of the fat suggests a pancreatic primary tumor or direct continuity from the lymph nodes, as may be seen with a lymphoma.²

CASE REPORT

A 52 year old man presented with complains of moderate, continuous upper abdominal pain without aggravating and relieving factors since 20 days and anorexia. Past history revealed left nephrectomy five years back owing to renal cell carcinoma. There was no history of jaundice, haematuria, fever, vomiting, and weight loss. Liver function test, serum amylase, lipase, renal function test, and blood sugar were within normal limits. Ultrasonography revealed single mass of size 5×5 cm in the region of head of pancreas. Contrast enhanced CT of abdomen confirmed a 5×5 cm lesion at the head of pancreas, without involvement of peripancreatic fat, lymph node and superior mesenteric vessel.

X-Ray chest was negative for metastasis. Pancreaticoduodenectomy was done to remove the tumor mass. Histopathological evaluation showed solid lesion with area of hemorrhage and necrosis. The final diagnosis of metastatic clear cell, renal cell

carcinoma of head of pancreas was reached. Post operative recovery was unsatisfactory. Patient developed anastomotic leak on 5th post operative day.

DISCUSSION

Renal cell carcinoma accounts for 2-3% of all malignant tumors in adults.¹ RCC usually metastasizes to lungs, bones, lymph nodes and cerebrum but other less common metastatic sites such as the pancreas (in 2.8% of cases), duodenum, spinal canal, thyroid, testis and small intestine, have also been reported.^{2,3} Literature review revealed that only 96 cases have been reported, most of which were regarding solitary metastasis associated with the presence of metastasis in other regions of the body. Metastasis does not have a predilection for a particular part of the pancreas. Pancreatic metastases have a favorable outcome compared with primary pancreatic cancer.¹

Pancreatic metastasis from renal cell carcinoma are often asymptomatic in more than 50% of cases.⁴ Most patients with secondary pancreatic tumors present in a similar way to those with primary tumors. The symptoms described are abdominal pain (20%), weight loss (91%), gastrointestinal bleeding (20%) due to duodenal infiltration, obstructive jaundice (9%), diabetes (3%) and pancreatitis (3%). There may be an abdominal mass and dysfunction but some patients have no symptoms.⁵

The mode of spread of renal cell carcinoma to the pancreas is controversial and can either be hematogenous or via lymphatics. Direct spread to the pancreas is unusual. Spread through lymphatics may occur by retrograde lymph flow, secondary to

tumor infiltration of the retroperitoneal lymph nodes. Hematogenous spread may occur along the draining collateral vein of a hypervascular renal tumor with or without associated renal vein thrombosis.⁶

Traditionally, percutaneous FNA is used for the diagnosis of pancreatic masses, and the diagnosis of pancreatic metastasis by this method has been reported. When available, however, EUS has largely supplanted percutaneous FNA for the sampling of solid pancreatic masses, including pancreatic metastasis. In a recent report of 11 patients with metastatic RCC to the pancreas, Be'chade et al found that 10 had well-defined borders. Therefore, it appears that EUS visualization of a well defined pancreatic mass in a patient with a history of malignancy should raise suspicion for a metastatic lesion.⁷

Although metastatic foci are present in about 25% of RCCs at the time of primary diagnosis (synchronous), metastatic disease can develop as part of the latency of the tumor, with delayed development of metastasis after many years of dormancy (metachronous), especially if the tumor is well-differentiated.⁴ Metastasis is solitary in fewer than 10% of patients with metastatic renal cell cancer. Resection of isolated metastasis may contribute to prolonged survival in a small subgroup of these patients. More than 50 cases of pancreatic resections for metastatic renal cell cancer have been reported, and it would appear that these are the most frequent surgically treated metastasis to the pancreas.

More than 80% of the patients undergoing

pancreatectomy survive longer than 12 months and 5-year survival of 31% has been predicted for patients undergoing resection of pancreatic metastasis due to renal cell carcinoma. This survival is even better than that of patients with resected primary pancreatic adenocarcinoma, for whom 5-year survival is between 15% and 20%.⁸

CONCLUSION

Metastases in pancreas are suspected on the CT appearance of hyper-vascular lesion and should be further evaluated with endoscopic sonography and biopsy.

AUTHOR NOTE

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