

Pancreatic Metastases after Renal Cell Carcinoma: A Rare Case Report

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ABSTRACT

Introduction: Pancreatic metastases are not found so often following renal cell carcinoma. They are not detected usually. Only few cases have been reported till now.

Case report: A 58 year old gentleman having generalised symptoms was accidentally diagnosed to have tumour in the pancreas during regular follow up after being operated for nephrectomy for left renal cell carcinoma. The case discusses how the patient was successfully managed and the importance of regular follow up after malignancy.

Conclusion: Early diagnosis is very important in such cases for better results as most of the time tumour is detected incidentally as in these case. Surgery offers very good chances of cure.

Keywords: Renal cell carcinoma (RCC), pancreatic metastases, Endoscopic ultrasound.

INTRODUCTION

Renal cell carcinoma (RCC) tend to metastasize to the pancreas representing 0.25% -3% of all resected specimens. Pancreatic metastases are usually detected during the follow up of patients having undergone a previous nephrectomy for RCC. The biology of Metastatic RCC is heterogeneous. Recurrence may present within 1 year or even after more than 20 years with a slow growth pattern for metastases. RCC spreads haematogenously and 30% of patients have distant metastases or locally advanced disease at presentation.¹ 10% of patients have metastases to colon and pancreas.²

CASE REPORT

We report a case of 58 years male patient incidentally discovered pancreatic mass at Sir Ganga Ram Hospital, New Delhi, when he was on regular follow up post left nephrectomy for RCC. The patient was apparently well till April 2010, when patient had generalised weakness and decreased appetite on evaluation, found to have large heterogeneously enhancing mass with exophytic component in mid and lower pole of left kidney abutting lower pole of spleen and posterior abdominal wall and was subsequently operated for same with pre-operative embolisation, open left radical nephrectomy. Biopsy showed clear cell type cancer. Patient was on regular follow up and was relatively asymptomatic till October 2015, when on regular follow up, CECT Abdomen found to have 3 well defined arterially enhancing lesion in the head, proximal and distal body of pancreas. EUS guided FNAC suggestive of metastatic RCC or Neuroendocrine tumour. PET-CT was done which reveal non FDG avid lesion in the head and body of pancreas, appearing suspicious of malignancy, now admitted for further management. Examination: P/a: soft non-tender, no organomegaly. Blood investigations were all normal.

Number of complication: 1, Clavien grade 2, Type of complications: Fever, Charlson's co-morbidity index score.⁸

Special Investigations

CECT abdomen: reveals evidence of left nephrectomy, at least³ well defined arterially enhancing lesion in the head, proximal and distal body of the pancreas. They may represent neuro-endocrine lesion or metastatic disease in a known case of RCC (figure-1,2).

EUS-FNAC: 12 X 14 mm well defined hypoechoic lesion seen at the junction of body and head of pancreas. Using a 22 G FNA needle tissue was obtained from the pancreas SOL and sample sent for cytology. Pancreatic SOL – malignant FNAC: Positive diagnostic for malignancy.

PET- CECT Whole body: Non FDG avid enhancing lesion in the head and body of pancreas appears suspicious for being malignant: ? NET ? Metastases.

Operation was performed at Sir Ganga Ram Hospital New Delhi. Subtotal Pancreatectomy with splenectomy

Operative details

1) 3x2 cm nodule in tail of pancreas was found and 3x3 cm nodule in midbody of pancreas was also present. Intra – op US: 1x0.5 cm lesion in the head of pancreas. Liver along with rest of viscera were found normal. Left nephrectomy was performed (figure-3,4).

Hospital course: Postoperatively patient was shifted to ward on Pod 1. Ryle's Tube was removed on POD 2 and patient was gradually started on diet. Patient developed fever for which patient was started on IV antibiotics according to culture and sensitivity report. Patient developed colicky pain in abdomen for which patient was kept on liquid diet for one day and was restarted on diet gradually again. Drain was removed on POD.⁴ Now patient is being discharged in stable condition for further follow up in OPD.

Histopathology: Metastatic Renal (clear) cell carcinoma of pancreas.

Section examined from pancreatic nodules show a metastatic tumor. Tumor is composed of nests and acini of tumor. Cells separated by thin fibrous septae. Cells are polygonal with abundant clear cytoplasm. Nuclei are small. Retropancreatic and pancreatic neck resection margins are free of tumor.

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Section from spleen show expansion of red pulp, which is congested. Multiple splenunculi are seen. Two lymph nodes resected are free of tumor.

DISCUSSION

Lung cancer was the most common source of metastasis to the pancreas followed by Lymphoma and Carcinoma of the gastrointestinal tract, kidney and breast. Pancreatic metastases from Renal cell carcinoma may be solitary or may form polypoid lesions in the pancreatic ducts in the ampulla. They may manifest after years or decade

after the original diagnosis was established. Resection of these secondary tumours, particularly after RCC is associated with relatively good survival rates.³

MDCT can reliably detect pancreatic involvement of RCC. The arterial phase is necessary to detect pancreatic involvement of RCC. The pattern of presentation is nearly constant helping to differentiate pancreatic metastases from pancreatic adenocarcinoma.⁴

EUS is widely accepted and helpful as the test of choice for imaging and sampling of pancreatic masses.⁵ EUS can also

assess vascular invasion and lymphnode invasion, which is helpful in patient management and to decrease complications and mortality.^{5,6}

Surgical treatment of metastatic pancreatic lesion after RCC may involve a standard Whipple's or distal pancreatectomy depending on the location of the secondary deposit. Many authors have advised for atypical resection of pancreatic metastases from RCC such as duodenum preserving pancreatic head resection, Middle pancreatectomy and enucleation of the tumour.^{7,8}

Pancreatic resection has been associated with high morbidity and mortality. However many recent reports, confirm the mortality associated with pancreatic resection has declined over the past three decades. Mortality rate is 1-2% and morbidity rate is 38.3%.⁹ For that matter, complications were further analysed by stratification on the basis of severity using the classification system proposed by Dindo and colleagues...

With this analysis, most complications were deemed to be grade 1 requiring only pharmacological intervention. Grade 4 complications were seen in only 6% of patients and consisted of sepsis related to post-operative pancreatic fistulae.⁹ The effectiveness of pancreatic metastasectomy is dependant on the tumour biology of the primary cancer. Renal cell carcinoma is associated with the best outcome with around 66% 5 year survival.⁹ Factors associated with good prognosis include, long disease free interval after resection of primary tumour, a single metastatic deposit with central necrosis and

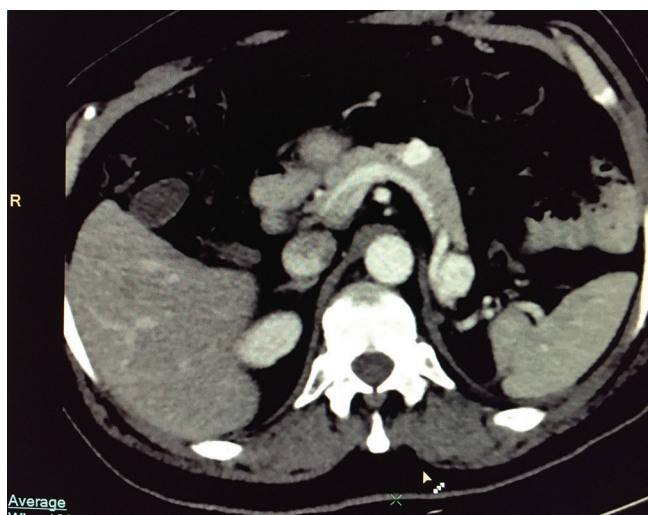


Figure-1: Arterial enhancement showing intensively the lesion in the pancreas

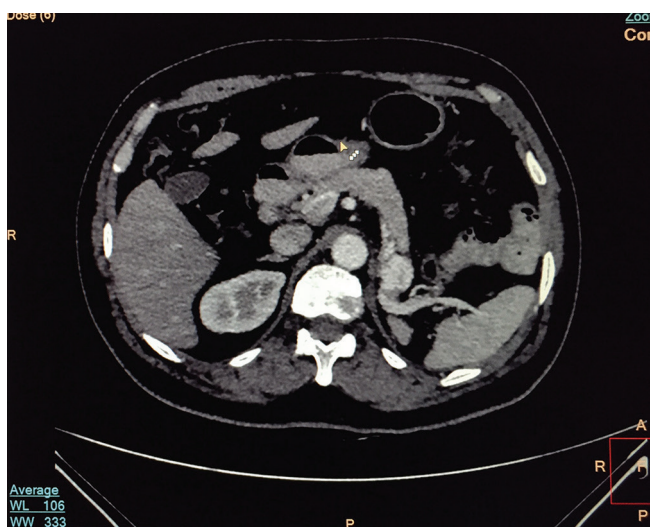


Figure-2: Nonenhancing phase showing bulge anteriorly in the pancreas

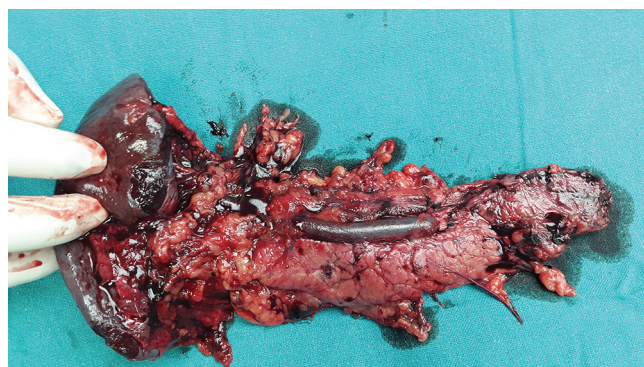


Figure-3: Specimen: pancreas with spleen



Figure-4: Intraop: pancreas with spleen

complete excision of the secondary deposit with histologically negative margins.¹⁰

CONCLUSION

Pancreatic metastasis from RCC are rare and may be the only site of metastasis. They may present many years after radical nephrectomy of primary RCC. Sometimes the lesions are detected accidentally during routine follow up. The best outcome for pancreatic metastasectomy is for renal cell cancer compared to pancreatic metastases from neoplasms other than RCC..Complete resection of the tumour gives the best chances of cure. Local recurrence or a new site of tumour development in the pancreas may be actively treated with a total pancreatectomy. Patients with a history of RCC should undergo long-term follow up to detect and evaluate metastases to pancreas and other organs.Surgical resection must be discussed as it offers long term survival..

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