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Case Report

Multiple Asymptomatic Pancreatic Metastases in Newly Diagnosed Patient of Renal Cell Carcinoma- A Case Report

Waqas Ahmad[1*], Nadia Mushtaq[1], Muhammad Atif Naveed[1] and Palwasha Gul[1]

[1]Shaukat Khanum Memorial Cancer Hospital and Research Center Lahore, Pakistan

*Corresponding Author
Waqas Ahmad

Abstract: Renal cell carcinoma gives pancreatic metastatic lesions usually solitary or at times multiple after many years of nephrectomy which are detected routinely on follow up imaging. Asymptomatic pancreatic metastatic lesions on initial diagnosis with renal cell carcinoma are very rare. We hereby present a case report of such patient who had multiple pancreatic lesions on baseline imaging proved by histological diagnosis.

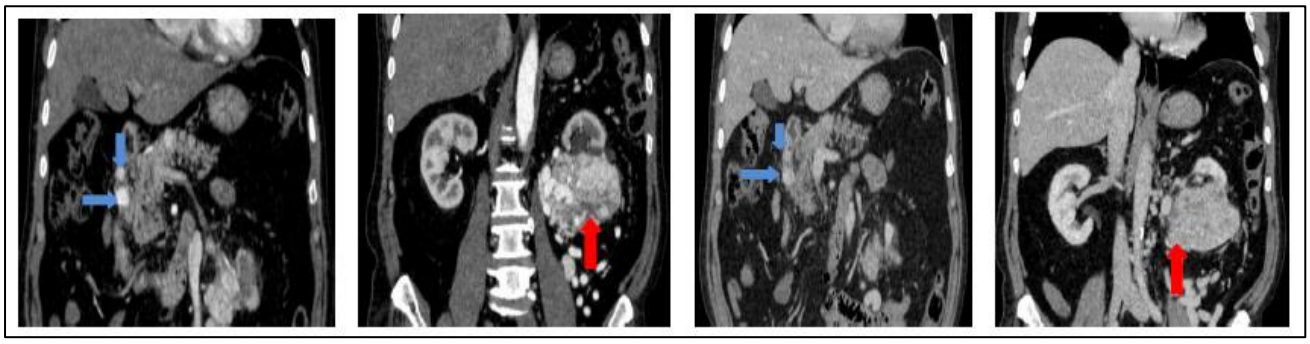
Keywords: Pancreatic lesions, renal cell carcinoma, imaging.

BACKGROUND:

Pancreatic metastases are rare ranging from 2 to 5% of all pancreatic tumors. Most of pancreatic metastases come from renal, lung, breast, colorectal, melanoma and soft tissue sarcoma as primary tumors. Isolated pancreatic metastases of renal tumors are rare where they usually present as solitary and sometimes multiple lesions and occur many years after nephrectomy. Multiple pancreatic metastases in newly diagnosed renal cell carcinoma are extremely rare.

Case Report:

70 years-old-male presented to outpatient clinic with complaints of painless hematuria for 20 days. Initial work up with ultrasound and CT showed heterogeneous left renal mass extending into left renal vein. Further staging scans showed multiple arterially enhancing lesions in the pancreas. Imaging differentials of pancreatic metastases versus neuroendocrine tumor were given. After case discussion in tumor board meeting, a decision was made to get endoscopic ultrasound guided fine needle aspiration cytology (FNAC) of the pancreatic lesions which proved those as metastatic lesions. Patient subsequently underwent left nephrectomy, splenectomy and total pancreatectomy.



A B C D

Fig.1 (A, B) arterial phase and (C & D) venous phase coronal reformatted images showing heterogeneous left renal tumor with multiple collaterals. Enhancing pancreatic metastatic lesions are appreciable on both phases (blue arrows).

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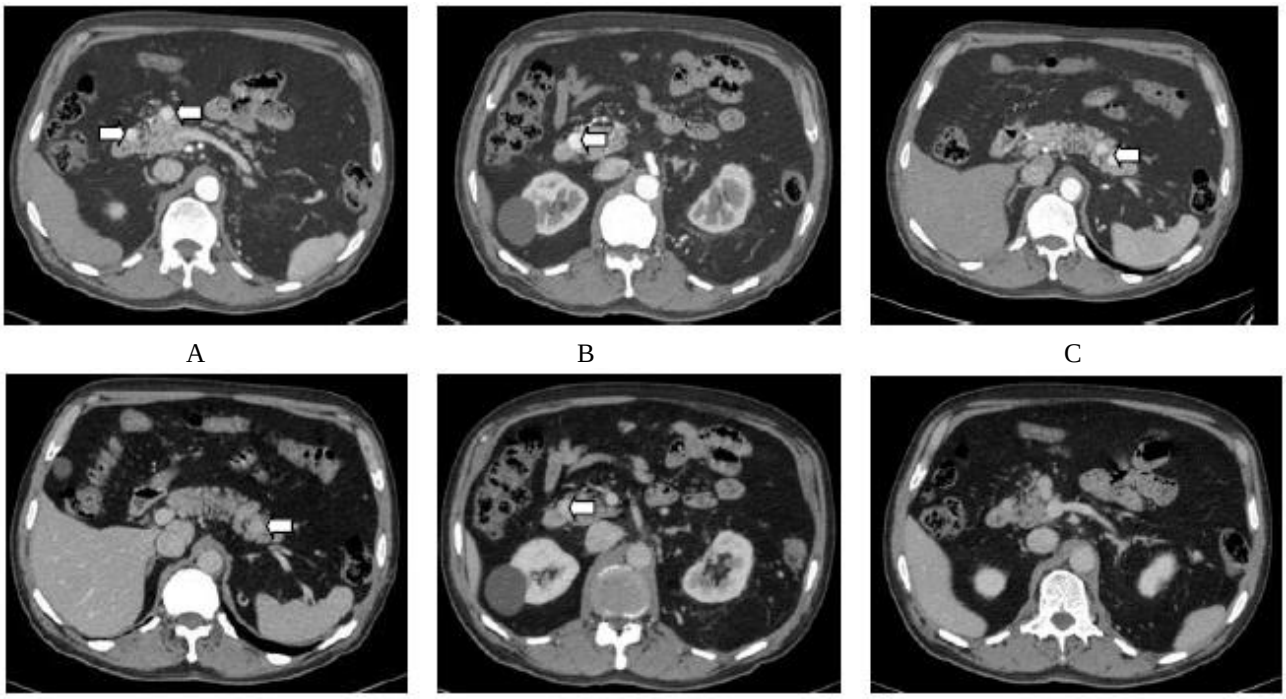
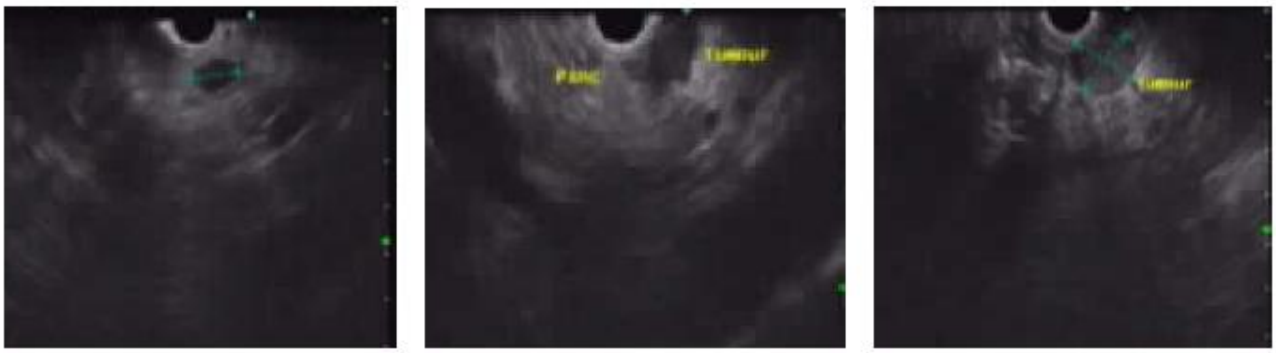


A B C

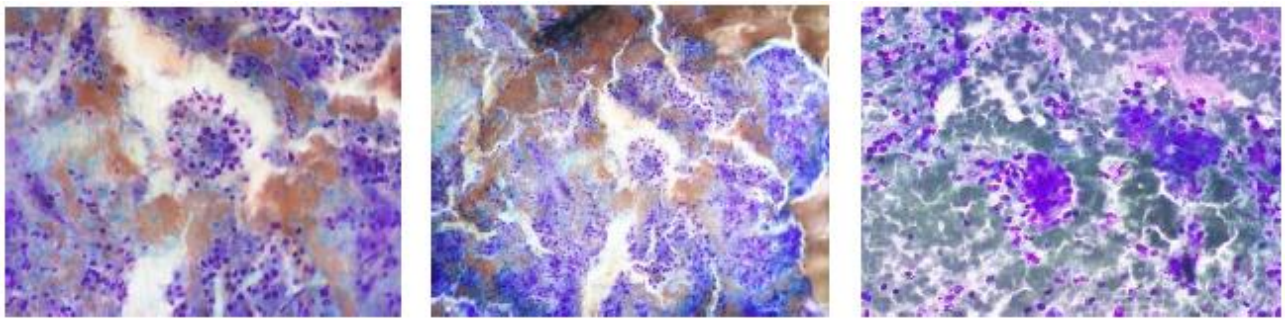
D E F

Fig.2 (A, B and C) serial arterial phase axial images through abdomen show enhancing multiple pancreatic lesions, serial venous phase images (D, E and F) at same levels showing pancreatic lesions becoming isodense (white arrows). Simple right renal cyst noted.



A B C

Fig. 3(A, B, C) Endoscopic ultrasound images showing hypoechoic pancreatic lesions.



A B C

Fig. 4 (A, B, C) Few scattered groups of atypical cells noted showing overlapping and crowded nuclei with focal clearing of cytoplasm. These cells exhibit high N/C ratio with pleomorphic, hyperchromatic nuclei and prominent nucleoli.

DISCUSSION:

Pancreatic metastases are rare, statistically incidence of metastases is 2% to 5% [(1)] and primary pancreatic tumors constitute 90 % of malignant pancreatic tumors. Most common primary which metastasize to pancreas is renal cell carcinoma (RCC).

Even largest and multiple metastases to pancreas are from RCC are reported in literature (Rumancik, W. M. *et al.*, 1984). Other primaries include non-small cell lung carcinoma, gastrointestinal carcinoma and osteosarcoma. Few of these exhibit typical imaging features as RCC and cardiac sarcoma appear as hyper vascular lesion on arterial phase of CT (Ferrozzi, F. *et al.*, 1997). Radiology plays a great role in diagnosis and management plan of pancreatic metastasis. Endoscopic ultrasound guided FNAC is accurate for characterization of pancreatic metastases as invasive modality however CT has a prominent role as non-invasive modality for follow up (Rumancik, W. M. *et al.*, 1984; Ballarin, R. *et al.*, 2011; & Adsay, N. V. *et al.*, 2004).

Isolated pancreatic metastatic lesions from RCC are usually asymptomatic, rarely present with symptoms of abdominal and back pain (Adsay, N. V. *et al.*, 2004) and are detected on follow-up period after surgery [(3)]. Surgical resection is treatment of choice in patients with pancreatic metastases from RCC but selection of patients depends on disease burden at time of diagnosis. Synchronous pancreatic metastases at time of diagnosis of RCC are rare (Ballarin, R. *et al.*, 2011). Multiple studies have shown that solitary pancreatic metastatic lesion from RCC have longer survival than patient with other lesions of metastatic RCC (Ballarin, R. *et al.*, 2011). Prognosis for RCC lesions to pancreas is also better than for primary pancreatic adenocarcinoma (DeWitt, J. M. *et al.*, 2003). Early detection is crucial in further management and surgical planning of metastases to pancreas from RCC.

CONCLUSION:

Early detection and diagnosis of secondary pancreatic lesions on imaging is extremely important to help oncologist decide about therapy. Radiologist should be aware of imaging appearances of pancreatic metastases and possible differentials.

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