

Inoperable Pancreatic Metastasis of Renal Cell Carcinoma: A Case Report and a Review of Literature

Hanae Bedoudou^{1*}, Lamiae Boudahna¹, Adil Mai², Boubacar Efare³, Said Ait Laalim⁴, Laila Chbani³, Youssef Alaoui Lamrani², Nawfel Mellas¹

¹Medical Oncology Department, University Hospital Hassan II, Fez, Morocco

²Radiology Department, University Hospital Hassan II, Fez, Morocco

³Anatomical Pathology and Cytology Laboratory, University Hospital Hassan II, Fez, Morocco

⁴General Surgery Department, University Hospital Hassan II, Fez, Morocco

Email: *hanae.bedoudou@usmba.ac.ma

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Abstract

Renal cell carcinoma (RCC) is a common cancer, but its pancreatic metastasis is unusual. We report a case of a 50-year-old male who was under the first line of treatment for a metastatic RCC since 2009. In August 2015, he showed up to the day unit with a cholestatic jaundice, and the investigations led to the discovery of a liver function alteration and a pancreatic mass. The biopsy of the inoperable mass revealed a RCC metastasis. The localization of this metastasis complicated the management of the disease due to haemorrhage and anemia. An embolization was performed to control the local complications. The patient was commenced on everolimus but with modest results forcing us to start exclusive palliative care.

Keywords

Renal Cell Carcinoma, Biopsy, Pancreatic Metastasis, Inoperable, Everolimus

1. Introduction

Renal cell carcinoma (RCC) is the second most common urological malignancy, running a highly variable clinical course [1]. Among patients with RCC, 20% - 30% have metastases at presentation and up to 40% - 50% develop widespread metastatic disease after nephrectomy. The pancreas is an uncommon location for metastases, which accounts for less than 5% of all pancreatic malignancies [2] [3]. A variety of cancers have been shown to metastasize in the pancreas, such as colon cancer, non-small cell lung cancer, and melanoma. RCC in particular shows, besides metastases to lymph nodes, lung, liver and bones, an in-

creased disposition for metastasis in rare sites, such as the thyroid gland and the pancreas [4] [5].

2. Case Report

A 50-year-old male (**Table 1**) with a background of obesity developed a left sided renal cell carcinoma in 2008. He underwent a radical nephrectomy. Pathological staging concluded to a pT4, Fuhrman Grade 4 clear cell type tumor. There was no evidence of metastatic disease at that time and he was placed under surveillance. In February 2009, he developed pulmonary and bone metastases. The patient underwent a treatment based on Sunitinib plus zoledronic acid. After 24 months of treatment (interspersed with treatment breaks), the patient's disease was stable.

In August 2015, he showed up to the Day Unit with a week history of jaundice and pruritus as PS 2 patient. Liver function tests were grossly abnormal with a cholestatic picture (Alkaline phosphatase 898 IU/L, ALAT 194 IU/L, ASAT 234, γ GT 464 IU/L, total bilirubin 80 mg/L and conjugated bilirubin 68 mg/L). Contrast enhanced computed tomography (CT) of the abdomen showed a locally advanced tissue density pancreatic mass measuring 15.6 cm in the larger diameter (**Figure 1**). A multidisciplinary reunion concluded to the non-feasibility of a surgical resection. An endoscopic drainage was planned but the patient underwent a radiological embolization first due to an intern hemorrhage. A biopsy of the pancreatic mass was performed. The microscopy and the immuno-profile were suggestive of a renal cell carcinoma (**Figure 2**). In March 2016 and after normalization of laboratory tests, the patient was commenced on everolimus as a second line of a palliative strategy. After three months of treatment, the patient had a stable disease, but the alteration of his performance status and multifactorial anemia forced us to suspend the drug and to undergo numerous blood transfusions. The patient was on exclusive palliative care for three months before his death.

3. Discussion

RCC is a common cancer type. When the tumor is limited and remains in stage 1, it is characterized by a high 5-year survival rate (up to 95%) [6]. However, once it develops widespread metastases, the 5-year survival rate of the patients will drop to less than 10% [7]. Pancreatic metastasis accounts for 2% - 5% of pancreatic malignancies. However, it seems to be related to a relatively good prognosis and leads to a different therapy strategy [8]. Therefore, it is very important to preoperatively diagnose a pancreatic metastasis. Solitary pancreatic metastases are difficult to differentiate and may be misdiagnosed as primary pancreatic cancer.

Due to their rarity and peculiarity, pancreatic metastases of RCC were described mostly in case reports. In 2006, Sellner and colleagues [9] conducted a high volume systemic research which thoroughly reviewed the literature of RCC with pancreatic metastasis from 1952 to 2003. Jing Dong and colleagues [10]

Table 1. Sociodemographic and clinical characteristics of the patient.

Patient characteristics	Age	Gender	Origin
	50	Male	North African
Antecedent	Patient		Family
	Obesity Radical nephrectomy ^a		No history of cancer

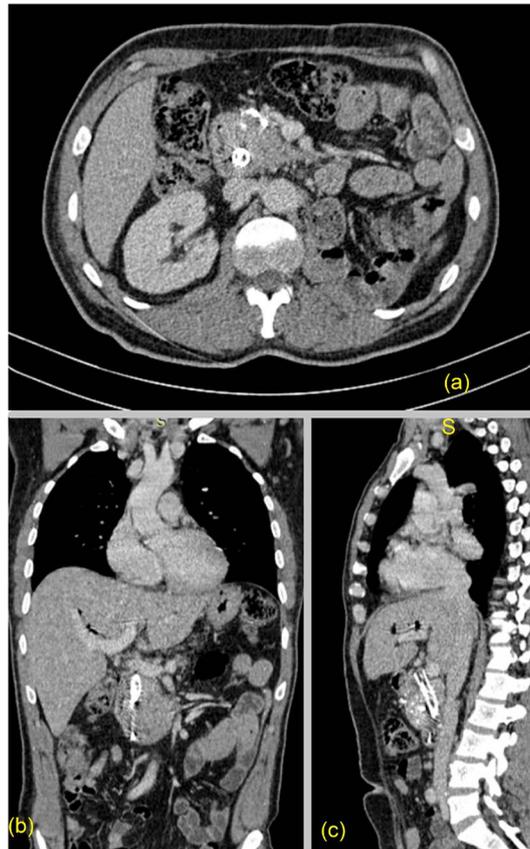


Figure 1. Scannographic axial (a) coronal (b) and sagittal (c) sections of a pancreatic mass.

compared a series of 7 cases to a systematic review to conclude that asymptomatic metastases and surgical procedures were independent factors associated with better survival.

In our case, the patient was non-operable and a new line of targeted therapy was the best available option.

Data suggests that RCC with pancreatic metastasis have a better outcome than lymph nodes, liver or cerebral metastasis [11] [12]. The overall survival rates are 80.6% and 72.6% at 2 and 5 years for resected patients versus 41 and 14% respectively in unresected patients [13].

4. Conclusion

In conclusion, when pancreatic metastases of RCC are resectable, surgical treatment might be an option as long as no comorbidity contraindicates resection. The optimal resection strategy involves adequate resection margins and

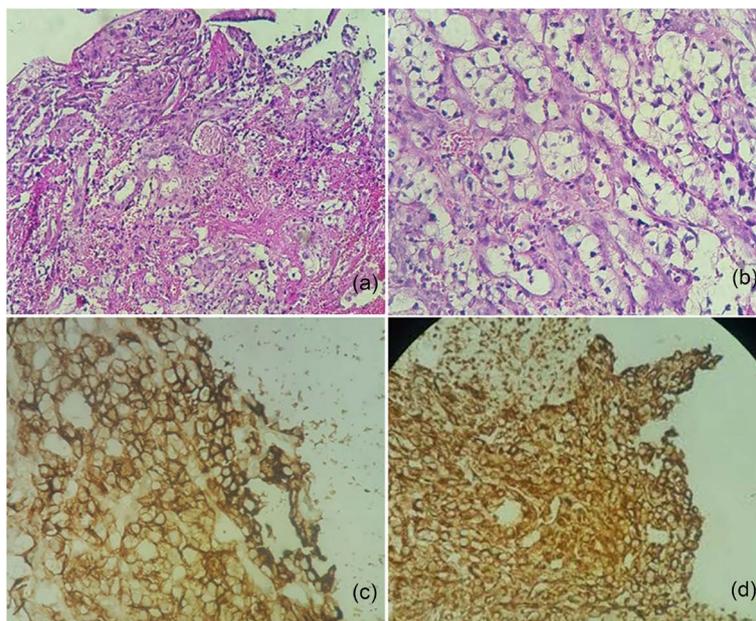


Figure 2. Pancreatic metastasis of a RCC [H & E \times 100 (a) H & E \times 400 (b)], tumor cell positive for CD 10 (c) and vimentine (d) and negative for CK.

maximal tissue preservation of the pancreas. If surgery is impossible, all palliative options (radiological, endoscopic and systemic treatment) should be deployed to improve symptoms and the quality of life.

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