Renal cell carcinoma is the most common renal malignancy. The biology of the disease is characterized by the possibility of late recurrences in unusual localizations. Authors presented pancreatic multiple metastases of renal cell carcinoma 19 years after renal tumor excision.

Key words: pancreas, carcinoma renal cell, metestases.

Pancreatic multiple metastases of renal cell carcinoma – case report

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Introduction

Renal cell carcinoma (RCC) is a relatively rare adult solid tumour accounting for 3% of malignancies. The most common (70-80% of renal neoplasms) histological type of RCC is clear cell carcinoma. However, 30% of patients present metastatic disease at diagnosis and 20% locally advanced tumours [1]. Patients with RCC can have late recurrences in unusual locations, such the skin, thyroid or pancreas. Metachronous metastases may occur several years after nephrectomy [1-3]. Resectable RCC metastases detected in follow--up control should be treated surgically and metastasectomy may produce occasional long-term survivors [1].

Case report

A 66-year-old woman was qualified for surgery because of asymptomatic multiple pancreatic tumours occasionally detected on abdominal CT (Fig. 1). Nineteen years ago she underwent right nephrectomy with epinephrectomy because of RCC. She underwent right and left pulmonary segmentectomy eighteen years ago because of RCC metastatic tumours. During the laparotomy multifocal tumours were found within the pancreas: one in the head (2×1.3×1.2 cm), three in the distal pancreas (2.2 cm, 1.4 cm and 1 cm in diameter) one tumour (2.3 cm) in the pancreatic tail and a 1 cm tumour in the left suprarenal gland (Fig. 2). Total pancreatoduodenectomy with splenectomy and left adrenalectomy was performed. Microscopic examination (No. 895836-838) revealed nephrogenic carcinoma metastatic tumours in all pancreatic tumours (Fig. 3). A simple adenomatous lesion in the left suprarenal gland was found. There were no metastases in locally excised lymph nodes. The postoperative period was complicated by circulatory insufficiency due to atrial fibrillation paroxysm and high volume (7 L) serous fluid drainage from the abdominal cavity resulting in deep electrolyte imbalance. Abdominal fluid presented negative lipase, amylase and chylomicrone tests. The fluid output decreased spontaneously within 14 days and the patient did not

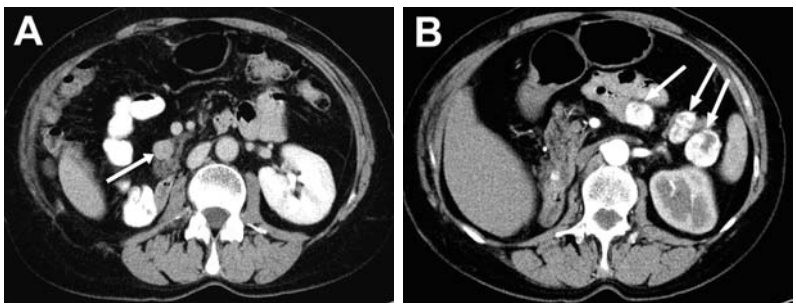

Fig. 1. Abdominal computed tomography. Renal cell carcinoma metastases (arrows) in pancreatic head (A) and three lesions visible in pancreatic corpus and tail (B)

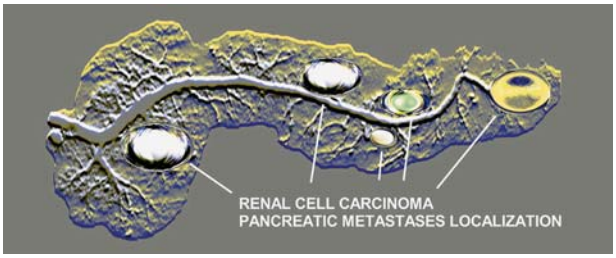

Fig. 2. Schematic localization of multiple renal cell carcinoma metastases in pancreatic head, body and tail

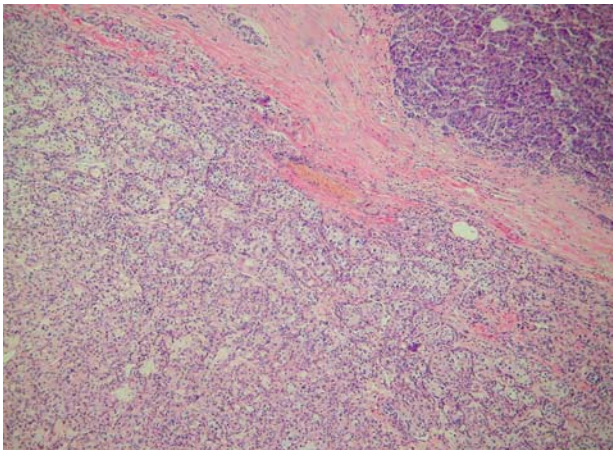

Fig. 3. Microscopic picture of renal cell carcinoma metastases in pancreatic parenchyma. Magnification 100×. Standard haematoxyline/eosine staining

require additional surgical treatment. She was treated at the intensive care unit (ICU) for 4 days and then 19 days in the Department of Diabetes Care. The patient presented diabetic symptoms and required insulin therapy. Two years' observation revealed multiple (diameter from 1 cm to 1.5 cm) liver metastases treated with high frequency ablation.

Discussion

RCC is a rare malignancy with a variety of clinical manifestations. Up to 30% of patients with RCC have metastases at presentation and about 50% of the remainder will have recurrence after nephrectomy. There are several factors affecting survival of patients with metastases of RCC: the site and number of foci, the performance status of the patient and the disease-free interval (DFI) [4].

RCC metastatic tumours originate from the haematogenous and lymphatic routes [1-3, 5]. Pancreatic lesions of RCC are produced by the haematogenous route [4, 6, 7] and occasionally by a free neoplasmatic mass extended into the main pancreatic duct [8]. In the presented case, in accordance with several other authors, we did not find any lymph node involvement in the abdominal cavity [5, 7].

Better prognosis is found in solitary metastases and long DFI (more than 12 months). Although solitary metastases' complete resection is associated with 35 to 60% 5-year survival, there are few data addressing the benefit of an aggressive surgical approach in patients with multiple sites in different time periods [5, 7, 8]. Some authors have shown that no significant survival difference existed with respect to the number of lesions excised. Other studies revealed that 5-year survival depends only on radical metastasectomy, not the number of lesions or number of excised lymph nodes [7, 9].

Pancreatic metastases are rare in neoplasmatic disease. RCC produce pancreatic metastases in 2.8% of cases [10]. In large series mean time from radical nephrectomy to pancreatic recurrence in RCC was 8 to 12 years [2]. The longest DFI pancreatic metastatic tumour was found 27 years after radical nephrectomy. In the presented case DFI was 18 years.

Several authors have documented long-term survival after surgical metastatectomy in RCC [1]. Pancreatic metastases in RCC usually are solitary and symptomatic. Patients' complaints include gastrointestinal bleeding, abdominal pain, jaundice, haemosuccus and weight loss [1, 2, 5]. On the other hand, there are several reports of asymptomatic RCC metastases into pancreatic parenchyma. Japanese and Canadian authors reported multiple asymptomatic RCC pancreatic metastatic lesions detected only by routine follow-up examination [3, 5].

The other methods of disseminated malignancies treatment such as interferon therapy, radiation, chemotherapy, hormonotherapy and biologic therapy concerning 5-year survival are less effective than complete resection of metastatic RCC.

The presented case, and several other reports, support the necessity of long-term careful follow-up and reasonable metastasectomy in RCC metastases in patients with good performance status.

Acknowledgment

We would like to thank Miss Justyna Hirsz for her language assistance.

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