Renal carcinoma metastases to the gastrointestinal tract are seldom reported in medical literature. The study presented a case of a 76-year old female patient who underwent nephrectomy, due to T2N0M0 clear cell renal carcinoma and was additionally diagnosed with two metachronous metastases to the gall-bladder and pancreas. Abdominal ultrasound performed 32 months after nephrectomy demonstrated the presence of cholelithiasis and gall-bladder polyp. Laparoscopic cholecystectomy was performed. Clear cell renal carcinoma metastasis restricted to the gall-bladder mucosa was diagnosed on the basis of the histopathological examination. After surgery the patient remained under follow-up. In December, 2009 (47 months after nephrectomy) abdominal computer tomography (CT) revealed the presence of a tumor located in the tail of the pancreas. Distal pancreatic resection and splenectomy was performed. The histopathological examination confirmed the presence of clear cell renal carcinoma metastasis. The patient is in good general condition, under follow-up at the Oncological Outpatient Clinic.

Key words: clear cell renal carcinoma, metastasis to the gall-bladder and pancreas

Annually, malignant renal tumors are diagnosed in 150 000 patients throughout the world (which represents nearly 2% of all malignant tumor cases). The incidence of renal carcinoma is eight times higher in highly developed countries, in comparison to developing countries, reflecting both the impact of environmental factors, as well as the availability of imaging examinations. Male patients are twice as likely to be diagnosed with the disease, as compared to female patients. 90% of cases are diagnosed with clear cell carcinoma. At the time of diagnosis about 30% of cases are in stage IV, while 30% present with disease recurrence after nephrectomy (1, 2). The liver, lungs, lymph nodes, brain, and bones are typical location of the metastases (3). Metastases to the gastrointestinal tract are rarely described (duodenum, pancreas, and gall-bladder) (4, 5, 10-14).

Primary malignant gall-bladder tumors often coexist with cholelithiasis (11). Thus far, more than 30 renal carcinoma cases metastasizing to the gall-bladder have been described (synchronous metastasis – 33% and metachronous metastasis – 67% (7). Most were diagnosed during autopsy (3, 13, 14). The median time from nephrectomy to gall-bladder metastasis diagnosis was four years (7). In case of diagnosis of an isolated renal carcinoma metastatic lesion to the gall-bladder, cholecystectomy is recommended, because only such management creates an opportunity for longer survival (11, 12, 13, 15, 16).

The pancreas is also a rare location of renal carcinoma metastasis. Thus far, more than 230 cases of renal carcinoma metastases to the pancreas have been published (17). Usually, the metastatic lesion is diagnosed
many years after nephrectomy (4, 5, 8, 17-20). Approximately, 35% of patients with renal carcinoma metastases to the pancreas are asymptomatic. The size of the metastatic lesion is 25 mm (18, 19). Abdominal pain, gastrointestinal bleeding, significant weight loss, and diabetes are the most common symptoms diagnosed in the remaining patients (18). The authors observed a correlation between the onset of symptoms and the diameter of the metastatic lesion (45 mm) (18). The diagnosis of a symptomatic metastatic lesion to the pancreas within two years after the nephrectomy is associated with shorter survival (21). The method of choice consists in the surgical resection of the isolated metastatic lesion: pancreatectomy, pancreateoduodenectomy, or peripheral pancreatectomy (4, 9, 17, 18, 19, 22-25). Prognosis is relatively good, as compared to other malignant tumors metastasizing to the pancreas (26). Both the five-year survival and median disease-free time are twice as long after metastasectomy (88% and 44 months, respectively), as compared to the withdrawal from the metastatic lesion resection (47% and 27 months, respectively) (26). Therefore, some Authors recommend resection in case of multi-focal pancreatic lesions, and other organ metastases (26).

The aim of the study was to present a case of a 76-year old female patient with renal carcinoma, subject to radical surgical treatment, diagnosed with two metachronous gastrointestinal tract lesions. The metastatic lesion to the gall-bladder coexisting with cholelithiasis was diagnosed 32 months after the nephrectomy. Another metastatic lesion to the pancreas was diagnosed 47 months after nephrectomy.

CASE REPORT

A 70-year old female patient with asymptomatic hematuria lasting two months and confirmed CT renal tumor was admitted to the Department of Surgery on December 20, 2005.

Based on the medical history collected from the patient the following was established: the patient underwent surgery (hysterectomy due to endometriosis) in 1988. With the exception of varicose veins the patient complained of no other diseases. The family history of cancer and renal diseases proved negative.

Gynecological history: 5 pregnancies, 3 spontaneous labors, and two miscarriages.

The patient never smoked, drank occasionally (several times a year), and used no drugs.

The biochemical lab results and chest x-ray performed during the hospitalization were within normal limits. The patient was subject to radical right-sided nephrectomy on January 11, 2006. Based on the histopathological examination the patient was diagnosed with clear cell carcinoma, stage G3, according to Fuhrman’s classification.

The tumor focally infiltrated the fibrous capsule. Within the adipose capsule, ureter, and renal hilus neoplastic infiltration was not observed. The stage of the tumor was T2N0M0.

After surgical management the patient remained under constant follow-up. During routine abdominal ultrasound performed 32 months after treatment of the primary tumor the patient was diagnosed with cholelithiasis and gall-bladder polyp. Laparoscopic cholecystectomy was decided upon. Initially the procedure was delayed, due to a urinary tract infection. The patient received Cipronex 2 x 500 mg for a period of 14 days.

Laparoscopic cholecystectomy was performed in November, 2008. The histopathological examination confirmed the presence of a clear cell renal carcinoma metastatic lesion inside the 8 mm gall-bladder polyp. The tumor only infiltrated the mucous membrane. The surgical margins were free of neoplastic infiltration.

Control abdominal CT examinations performed in January and May, 2009 showed no metastatic lesions. In December, 2009 the patient was subject to yet another abdominal CT, which revealed the presence of a solid, highly-vascularized lesion located in the tail of the pancreas (26 mm in diameter), suggesting the possibility of renal carcinoma or pancreatic endocrine system metastases. No other pathological lesions within the abdominal cavity were observed. Both the chest X-ray and biochemical lab results remained within normal limits.
The patient was qualified for peripheral pancreatoduodenectomy and operated in January, 2010.

The intraoperative examination confirmed the presence of a 2.5 cm lesion located in the tail of the pancreas. Intraabdominal lymphadenopathy and generalized features of the neoplastic process were not observed. Pancreatic tail resection and splenectomy were performed. The postoperative period proved uneventful. The patient was discharged from the hospital in good general condition on the seventh day after surgery. The histopathological examination confirmed the presence of clear cell renal carcinoma metastasis. The patient is in good general condition and remains under control at the oncological outpatient clinic.

CONCLUSIONS

1. Clear cell renal carcinoma metastases to the pancreas and gall-bladder are rare.
2. The resection of an isolated renal cell carcinoma metastatic focus is the method of choice.
3. All patients with renal cell carcinoma require constant monitoring enabling early detection of recurrence.

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