

Renal cell-cancer with thrombosis in the inferior vena cava: Nephrectomy with thrombectomy

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Background. In 5–10% of cases, renal cell-cancer is complicated by the formation of a tumor thrombus in the inferior vena cava, which requires surgical intervention of nephrectomy with thrombectomy, which is essentially the only method of treatment for this category of patients. This operation is associated with technical difficulties and with the risk of intra- and postoperative complications.

Aim. To retrospectively analyze the results of surgical treatment of patients who underwent nephrectomy with inferior vena cava thrombectomy. To present a case from the clinical practice of the oncology department, share experience and demonstrate the results of successful surgical treatment of renal cell-cancer.

Methods. Retrospective analysis of 28 case histories of patients who underwent nephrectomy with inferior vena cava thrombectomy in the Oncology Department of the Meshalkin National Medical Research Center since 2014.

Results. 28 case histories were analyzed from 2014, the average age of patients was 59 years (min 48, max 83), the dominant histological form was renal cell-cancer in 26 cases (92,8%) and nephroblastoma in 2 cases (7,2%). Complications developed in 2 (7,2%) clinical cases in the form of intraoperative bleeding, one of which turned out to be fatal. In 2022, the laparoscopic technique was implemented into clinical practice (4 operations were performed).

Clinical case. Patient S., 57 years old, was hospitalized at the Meshalkin National Medical Research Center to the Department of Oncology. According to multispiral computed tomography data — the formation of the right kidney with invasion into the adipose capsule, a thrombus of the renal vein with prolapse in the inferior vena cava up to 1 cm. Diagnosis — Tumor of the right kidney, tumor thrombus of the renal and inferior vena cava, T3bNxMx. The patient underwent nephrectomy of the right kidney with thrombectomy of the thrombus from the inferior vena cava. According to the results of pathohistological conclusion — renal cell-cancer of the right kidney G2 with invasion into adipose tissue, germination into the renal vein, T3bN0M0. The postoperative period passed without complications, the drainage was removed on the 2nd day, the patient was discharged on the 4th day in a satisfactory condition.

Conclusion. Surgical treatment of renal cell-cancer complicated by tumor thrombosis is advisable to be carried out in multidisciplinary hospitals. Although venous invasion worsens the prognosis, a radically performed surgery gives a chance to increase life expectancy. An individualized approach to treatment planning, as well as non-standard surgical tactics involving an oncurologist and a cardiovascular surgeon in the team, allow you to carry out a full-fledged treatment, including with laparoscopic access, avoiding potentially fatal complications.

Keywords: inferior vena cava; nephrectomy; renal cell cancer; thrombosis