

Brain metastases from renal cell carcinoma

- Tumefactive primary central nervous system vasculitis mimicking a brain metastasis in a patient with kidney cancer
- A Cerebellar Tumor-to-Tumor Metastasis in a Patient With Von Hippel-Lindau Disease
- Cecal Metastasis of Clear Cell Renal Cell Carcinoma After Previous Nephrectomy
- Metastases and Primary Brain Tumors Affecting the Fornix of the Brain
- Fatal tumoral hemorrhage from brain metastases of renal cell carcinoma after stereotactic radiotherapy and immune checkpoint inhibitor and vascular endothelial growth factor-targeted therapy combinations
- Assessing the effectiveness and safety of lenvatinib and everolimus in advanced renal cell carcinoma: insights from the RELIEVE study's analysis of heavily pretreated patients
- Bench-to-bedside imaging in brain metastases: a road to precision oncology
- Re: Kosuke Takemura, Audreylie Lemelin, Matthew S. Ernst, et al. Outcomes of Patients with Brain Metastases from Renal Cell Carcinoma Receiving First-line Therapies: Results from the International Metastatic Renal Cell Carcinoma Database Consortium. Eur Urol. In press.
<https://doi.org/10.1016/j.eururo.2024.01.006>

Brain metastases from renal cell carcinoma refer to the spread of cancerous cells from the kidneys to the brain. Renal cell carcinoma (RCC) is known for its tendency to metastasize to various organs, including the brain. When RCC metastasizes to the brain, it can form tumors or lesions within the brain tissue, which can lead to symptoms such as headaches, neurological deficits, seizures, and other manifestations depending on the location and size of the metastases.

Renal cell carcinoma is the most common [kidney cancer](#) which tends to metastasize to the brain in about 4-11% of cases with an average interval from nephrectomy to brain metastasis of 1-5 years ¹⁾
²⁾)

The metastatic tumor from RCC has the propensity of intratumoral hemorrhage and relatively massive surrounding edema compared with other metastatic tumors. These characteristics make an emphasis on the surgical resection in the management of metastatic tumor. However, the surgery is not always possible due to the characteristics of tumor and patient. The outcome of conventional whole brain radiotherapy is unsatisfactory due to the resistant feature of RCC to the radiation, although it plays an important role in other malignancies. The stereotactic radiosurgery (SRS) including various modalities have showed the excellent outcomes in the control of tumor itself and surrounding edema. The repeatability of SRS is also attractive merit, because the new brain metastasis can be encountered in anytime regardless of the first-line treatment modalities. A few adverse effects following SRS have been reported however, incidence and severity could be acceptable without severe morbidity. Therefore, SRS must be emphasized in the management of brain metastasis from RCC and individual various combined treatment strategies could be suggested ³⁾.

Treatment

[Brain metastases from renal cell carcinoma treatment.](#)

Case reports from the HGUA

Q11864

Age: 59 years Relevant Medical History: Hypertension (HTA), Type 2 Diabetes Mellitus (DM2).

Current Medications:

[Bisoprolol](#) 5mg, 1 tablet every 24 hours.

[Metformin](#) 1000mg, 1 tablet every 12 hours.

[Omeprazole](#) 20mg, 1 capsule every 24 hours.

Ferbisol (Iron) 100mg, 1 capsule every 24 hours.

Escitalopram 10mg, 1 tablet every 24 hours.

Oncological History:

Stage IV [clear cell carcinoma](#) with pulmonary metastases.

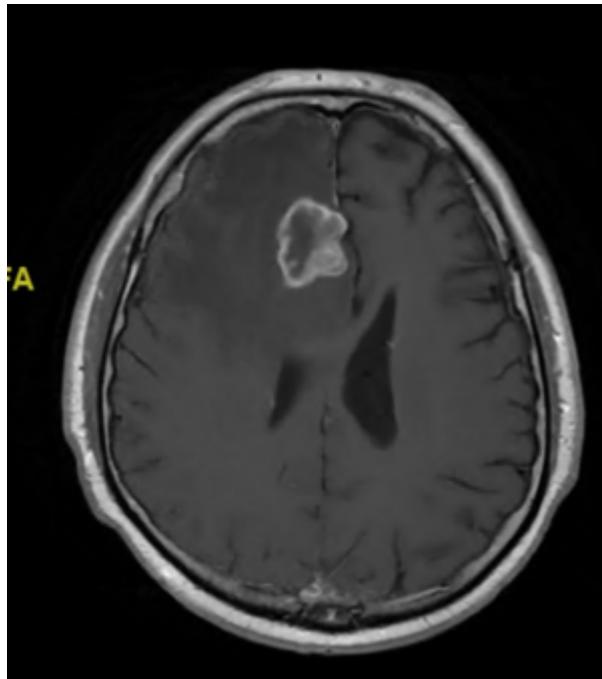
Previous treatments: Right [nephroureterectomy](#), SBRT RADICAL TOTAL DOSE 60Gy, [Nivolumab-Ipilimumab](#), [Cabozantinib](#).

Clinical Presentation:

Progressive weakness and asthenia. Dizziness, instability, intense holocranial headache.

Radiological Findings:

Brain MRI: Space-occupying lesion in the right frontal lobe suggestive of brain metastasis.



TAP CT: Findings secondary to known oncological history, without significant progression signs.
Postoperative Brain CT: Post-right frontal craniotomy changes without clear evidence of residual tumor. Surgical Procedure:

Craniotomy and resection of the brain tumor.

Postoperative Evolution:

Improvement of preoperative clinical status. Conscious, oriented, without new neurological focal deficits. Autonomous ambulation

Afebrile, no signs of wound infection. Postoperative images without complications or significant tumor remnants.

Management Plan:

Referral to Oncology and Radiotherapy for evaluation and management on the surgical bed. Hospital discharge with follow-up in Neurosurgery outpatient clinics. Comment: The patient has experienced a favorable evolution after the resection of the brain tumor, without significant postoperative complications. Multidisciplinary follow-up is planned to address the primary and secondary diseases.

¹⁾

Treatment of brain metastases from renal cell cancer Carsten Nieder, M.D.a,b,*¹, Oddvar Spanne, Ph.D.c, Tone Nordøy, M.D.c,², Astrid Dalhaug, M.D.a Department of Internal Medicine, Division of Oncology, Nordland Hospital, Bodø, Norwayb Faculty of Medicine, Institute of Clinical Medicine, University of Tromsø, Tromsø, Norwayc Department of Oncology, University Hospital of North Norway, Tromsø, Norway Received 15 May 2009; received in revised form 7 July 2009; accepted 7 July 2009.

²⁾

ChuanOu Yen, Ho Hao-Chung, Cheng Chen-Li. Treatment of metastatic renal cell carcinoma to the brain: a report of long-term survival following multimodal treatment and sequential use of targeted agentsChih-Chin YuJian-Ri Li*Division of Urology, Department of Surgery, Taichung Veterans General Hospital, Taichung, Taiwan. ROCUrological Science. April 2014;25(4)

³⁾

Kim YH, Kim JW, Chung HT, Paek SH, Kim DG, Jung HW. Brain metastasis from renal cell carcinoma.

Prog Neurol Surg. 2012;25:163-75. doi: 10.1159/000331190. Epub 2012 Jan 6. PMID: 22236678.

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