

Important Potential Role for Routine Brain Imaging in Advanced Kidney Cancer

Study finds 4% of patients with metastatic renal cell carcinoma developed asymptomatic brain metastases, correlating to poorer outcomes.

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The April 2021 issue of [JNCCN—Journal of the National Comprehensive Cancer Network](#) publishes new research from Memorial Sloan Kettering Cancer Center (MSK) and Gustave Roussy Institute, which suggests that baseline brain imaging should be considered in most patients with metastatic kidney cancer. The researchers studied 1,689 patients with metastatic renal cell carcinoma (mRCC) who had been considered for clinical trial participation at either of the two institutions between 2001 and 2019 and had undergone brain imaging in this context, without clinical suspicion for brain involvement. The researchers discovered 4% had asymptomatic brain metastases in this setting. This group was found to have a low median 1-year overall survival rate (48%), and median overall survival (10.3 months).

"With 4% overall incidence in this cohort, one might conclude that baseline brain imaging should be considered in all patients with metastatic kidney cancer, particularly those with multiorgan involvement and/or pulmonary metastases" said lead MSK researcher Ritesh R. Kotecha, MD, who also worked with investigators from Gustave Roussy, a leading academic cancer center located just outside Paris, France.

"Brain imaging is routinely obtained for kidney cancer patients with symptoms that suggest central nervous system (CNS) metastases, but none of the patients with brain metastases included here were symptomatic," added senior researcher Martin H. Voss, MD, also with MSK. "In current practice chest, abdomen, and pelvis are routinely imaged from the time that metastatic disease is first detected yet many oncologists do not image the brain."

The researchers found 86% of the patients with asymptomatic brain metastases harbored metastatic disease in 2 or more additional organ systems, most-commonly the lung, followed by liver and bone.

"The retrospective study by Kotecha, et. al. demonstrates that incidental brain metastases occur in a clinically significant percentage of patients with newly diagnosed metastatic renal cell

carcinoma,” commented Eric Jonasch, MD, Professor, Genitourinary Medical Oncology, [The University of Texas MD Anderson Cancer Center](#), who was not involved in this research.

Jonasch, who is Vice-Chair of the NCCN Clinical Practice Guidelines in Oncology ([NCCN Guidelines](#)) Panel for [Kidney Cancer](#), continued: “The findings in this study are important for two reasons. First, they show that the overall prognosis of patients with brain metastases is consistently worse than the broader population of patients with metastatic renal cell carcinoma. We need to develop a deeper scientific understanding of why this patient population has a worse outcome, and we need to include them in future clinical trials. Second, they underscore the utility for MRI imaging of all patients with metastatic renal cell carcinoma both at initial diagnosis, and at regular intervals, to detect occult brain metastases, since specific treatment strategies are required for this patient population.”

The researchers acknowledged that their data cannot provide input as to how frequently brain surveillance should be repeated, and called for additional study.

To read the entire article, visit [JNCCN.org](#). Complimentary access to “[Prognosis of Incidental Brain Metastases in Patients With Advanced Renal Cell Carcinoma](#)” is available until July 10, 2021.

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