## Cytoreductive nephrectomy improves outcomes in the era of targeted therapy

The introduction of targeted therapies such as vascular endothelial growth factor and mammalian target of rapamycin inhibitors has improved the outcomes of patients with metastatic renal cell carcinoma (mRCC); however, at the same time, the role of cytoreductive nephrectomy, which was previously widely used in the treatment of these patients, has become unclear. Now, data from an extensive National Cancer Database Study confirm the continued importance of this surgery in patients with mRCC who are receiving targeted therapy.

On the rationale for this approach, lead authors Maxine Sun and Toni K. Choueiri explain: "previously we knew cytoreductive nephrectomy improved the outcomes of patients receiving cytokines owing to data from clinical trials. However, we don't have such data following the advent of targeted therapies". Building on work from a previous study of 201 patients, the outcomes of 15,390 patients receiving targeted therapies with or without cytoreductive nephrectomy for mRCC in the USA between 2006 and 2013 were analysed. Cytoreductive nephrectomy was performed in 35% of patients included in the database, and the use of this procedure was found to provide survival benefits of 0.7 months and 3.6 months in patients who survived ≤6 months and ≤24 months, respectively.

Despite these apparently positive results, the investigators highlight that this approach should not be conducted in all patients "The associated morbidities remain critical and, in our previous study, patients with features suggesting unfavourable-risk disease did not benefit from surgery."

Commenting on future directions of research in this area, the authors add: "we need to standardize the selection of appropriate candidates for surgery and rigorously test the selection criteria, these criteria should then be integrated into routine clinical practice."

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