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EDITORIAL COMMENT

Over the last 20 years, our understanding of renal cortical tumors (RCT) and their best management has evolved. Formerly, surgeons felt that tumors of all sizes and locations were best managed by radical nephrectomy (RN) if there was a functional contra lateral kidney. Partial nephrectomy (PN), initially used sparingly, was reserved for essential indications such as tumor in a solitary kidney, tumor in a patient with renal calculus disease or renal insufficiency, and for patients with bilateral renal tumors. Now we understand that RCT are a complex family of tumors with at least 31 separate subtypes described based on genomic and metabolomic studies.[1,2] These tumors pose a spectrum of oncologic threats ranging from benign (20%), indolent with limited metastatic potential (25%), and malignant (55%). This variable threat from RCT coupled with the understanding that PN provides equivalent tumor control to RN while at the same time preserving renal function, preventing, or delaying chronic kidney disease and its associated cardiovascular disease lead to enhanced utilization of PN in the elective setting.[3]

Yet, RN is still overused on the national level for the management of T1 tumors for reasons that are likely multi factorial and may include a surgeon's technical comfort level with PN (by any approach) and concern for common postoperative complications such as bleeding and urinary fistula.[4] Patients are often told that a tumor close to the major vessels of the renal hilum is not technically amenable to PN and likely to have especially aggressive biology. The authors debunk this latter notion in their 10-year review of 1324 T1 RCT patients of which 226 (17.1%) were classified as hilar in location. The authors note no difference in the risk of malignancy, high nuclear grade, upstaging, or recurrence when compared to nonhilar lesions. In this series of hilar tumors, 31% were benign (13%) or indolent in nature (18%). The authors should be congratulated for their high rate of utilization of PN (83.2%, overall and 73% for the hilar tumors) which is far above what is reported at the national level.[4] Based on this study, surgeons capable of performing PN should feel free to plan and proceed in cases of renal hilar tumors and not worry that these tumors are any more dangerous than tumors arising elsewhere in the kidney.

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AUTHOR RESPONSE

The concept of kidney-sparing surgery or partial nephrectomy (PN) was first reported by Czerny[1] in the 1980's and then revisited by Vermooten[1] in 1950 for the management of encapsulated peripherally located renal tumors. Since, the use of nephron-sparing surgery for the management of renal cell carcinoma (RCC) has seen tremendous growth stimulated by our greater understanding of the deleterious effects of chronic kidney disease (CDK), experience with renovascular surgery, and the growing numbers of incidentally discovered small renal masses[1]; becoming the standard of care for the management of cT1 renal masses. As we continue to develop and expand the indications of organ-sparing surgical techniques in order to minimize treatment-related side effects, we must also recognize that these techniques are not absolute and must be tailored to the patient's specific tumor biology, physical capacity and treatment expectations.

In the present manuscript, we demonstrate the technical feasibility and oncological safety of the use of partial nephrectomy in patients presenting with hilar lesion measuring 7 cm or less in diameter. The impetus for the publication was not to advocate for "partial nephrectomy for all," but to provide a greater understanding of the biology of renal mass located near the hilar vessels. Hilar lesions, opposed to those located in the periphery, are less amenable for percutaneous sampling, the mainstay of renal mass risk stratification, and are managed as a homogenous entity of presumed high-grade potential. Here we note that hilar renal masses are no different to peripheral renal masses in regards to histology, nuclear grade, and oncological outcomes. Moving forward, nuclear medicine radiotracers such as 99mTc-Sestamibi (oncocytic masses) and G-250 Immuno-PET (clear cell RCC), hold promise for the histologic discrimination of renal masses not amenable to percutaneous biopsy but remain limited in the biological information provided. Advances in the detection of circulating tumor DNA (ctDNA),