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## COMMENTARY

# Considerations regarding active surveillance for small renal masses

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The preceding article by Jackson and colleagues<sup>1</sup> highlights clinical and radiographic variables associated with active treatment or surveillance (AS) for small renal masses (SRMs). Not surprisingly, in addition to several tumor-related characteristics (i.e. tumor size and depth of invasion), other clinical factors including patient age, gender, and comorbidity profile were associated with initial treatment selection. Perhaps most interesting, however, is consideration of the cohort of patients undergoing initial AS with subsequent need for therapy by either thermal ablation (TA) or partial nephrectomy (PN).

In this study cohort,<sup>1</sup> 12 patients (~10%) underwent therapy after an initial AS strategy. Mean age for this cohort was 56 years (range, 37 to 81) with 4 patients being younger than 50 years of age (Table 2). One wonders about the specifics of such cases (particularly the younger patients) given the proposed algorithm outlined by the American Urological Association.<sup>2</sup> Here, for a patient with a cT1a renal mass, partial and radical nephrectomy are the referent standard for therapy with TA and AS listed as options (healthy patient) or recommendation (comorbid patient). Clearly, individualized scenarios dictate care algorithms but consideration of published guidelines ensures standardized practice patterns.

This article also prompts discussion of renal mass biopsy (RMB) in the diagnostic algorithm for patients with SRMs when considered for AS. A recent SEER-Medicare based publication suggests a relative underutilization in that RMB was used in only 20% of patients prior to instituting therapy.<sup>3</sup> This low utilization is somewhat concerning particularly when considering the incidence of benign SRM neoplasms,<sup>4</sup> improved diagnostic accuracy of RMB,<sup>5,6</sup> and limitations of non-invasive variables<sup>7</sup> to predict growth of SRMs.

It would behoove us to follow some of the paradigms we practice for AS in prostate cancer. Here, AS regimens not only include serial rectal examinations, PSA serum measurements, but also needle biopsy to accurately characterize the histology underlying the disease. In fact, foregoing a repeat prostate biopsy on an AS regimen would be considered significant deviation from the standard of care. One wonders why a similar mentality has not been increasingly adopted for renal tumors. Indeed, a 2 cm biopsy proven renal oncocytoma would limit the need for serial imaging and associated patient anxiety about a cancer diagnosis. Similarly, a 2 cm clear cell Fuhrman grade III biopsy proven renal cell carcinoma may prompt immediate therapy whilst a similarly sized chromophone renal cell carcinoma may be ideal for AS. Although tumor heterogeneity remains a concern for RMB, I believe such an approach provides a more evidenced based rationale for integration of AS regimens into clinical management of enhancing renal masses. □

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## References

1. Jackson M, Cusano A, Haddock P et al. Clinical and radiographic characteristics governing the selection of therapy of small renal masses. *Can J Urol* 2014;21(6):7529-7535.
2. American Urological Association. Available from URL: <http://www.auanet.org/common/pdf/education/clinical-guidance/Renal-Mass-Algorithm.pdf>
3. Leppert JT, Hanley J, Wagner TH et al. Utilization of renal mass biopsy in patients with renal cell carcinoma. *Urology* 2014;83(4):774-779.
4. Corcoran AT, Russo P, Lowrance WT et al. A review of contemporary data on surgically resected renal masses – benign or malignant? *Urology* 2013;81(4):707-713.
5. Leveridge MJ, Finelli A, Kachura JR et al. Outcomes of small renal mass needle core biopsy, nondiagnostic percutaneous biopsy, and the role of repeat biopsy. *Eur Urol* 2011;60(3):578-584.
6. Gowrishankar B, Cahill L, Arndt AE et al. Subtyping of renal cortical neoplasms in fine needle aspiration biopsies using a decision tree based on genomic alterations detected by fluorescence in situ hybridization. *BJU Int* 2014;Epub ahead of print.
7. Organ M, Jewett MA, Basiuk J et al. Growth kinetics of small renal masses: a prospective analysis from the renal cell carcinoma consortium of Canada. *Can Urol Assoc J* 2014;8(1-2):24-27.

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