

Rapid growth may be appropriate trigger for treatment in patients with renal masses

May 16 2011

With an increase in abdominal imaging over the past decade, there has been an increase in the detection of incidental kidney cancer, which has led to concerns that we may be over-treating indolent disease. As part of this effort, clinicians have started to investigate the effectiveness of active surveillance (AS), or close observation as opposed to immediate surgery, for select patients with small renal masses (SRMs). Today, Fox Chase Cancer Center researchers will announce the results of its systematic review and pooled analysis, which for the first time combined several institutions' experience with active surveillance of small renal masses. Their goal was to identify trends in radiographic tumor growth rates and progression to either treatment or metastasis, and found that in select patients, active surveillance may be a viable option when surgery is risky due to poor health or advanced age.

Marc Smaldone, M.D., urologic oncology fellow at Fox Chase and lead author on the study, will present the results at the AUA 2011 Annual Meeting on Tuesday, May 17, 2011.

"[Kidney cancer](#) is most often a surgically treated disease, so studies such as this one, which help to confirm that active surveillance with curative intent can be an effective strategy for certain [patients](#), are crucial," says Smaldone. "Surgery has substantial consequences for many patients with competing risks such as heart or lung disease. The ability to offer a management strategy that avoids the risks of potentially unnecessary surgery is an attractive concept in contemporary cancer treatment."

To further investigate the risks of [cancer progression](#) in patients undergoing active surveillance, Fox Chase researchers combined all the available individual data published by institutions examining the observation of small renal masses. The team identified and pooled a total of 18 institutional series, of which Fox Chase's experience represented the largest published series. The researchers then examined the pooled experience for trends in radiographic growth rates, tumor size at presentation, and progression to treatment or [metastasis](#).

They found that, of the observed 936 SRMs in 880 patients, only a very small proportion – 2.1% (18 patients) – progressed to metastasis. Pooled analysis of progressors and non-progressors revealed significant trends including increased age, increased tumor size at presentation, and increased growth rates in the progression group. These metrics can be used to help determine if a patient should stop surveillance and undergo surgical intervention for his or her SRM. However, Fox Chase researchers learned that growth kinetics alone cannot predict a tumor's natural growth history. Therefore, active surveillance should not be considered an equivalent alternative to definitive surgical therapy, but it can be used as an initial short-term option for select patients who are poor surgical candidates.

"There is a perception that all cancers, once detected, should be treated immediately because they are all equally lethal, but what we've seen in this study is that small, asymptomatic kidney cancers can be managed through [active surveillance](#)," says Robert G. Uzzo, M.D., F.A.C.S., chairman of the department of surgery at Fox Chase and member of the AUA Guidelines Council. "As a medical community, we need to recognize this shift and begin to risk stratify patients and counsel them based on criteria other than the presence of small renal masses on scans."

While more research is necessary, this study suggests that growth kinetics may be the best measurement currently available for

determining which patients should undergo immediate intervention and which should not. As a supplement to radiographic data, future biomarker discovery in conjunction with percutaneous – or renal biopsy – might ultimately influence management decisions on an individual patient basis. Based on these findings patients should seek out urologic oncology experts to help them understand the implications of small kidney cancers and avoid overtreatment.

Provided by Fox Chase Cancer Center

Citation: Rapid growth may be appropriate trigger for treatment in patients with renal masses (2011, May 16) retrieved 2 May 2024 from <https://medicalxpress.com/news/2011-05-rapid-growth-trigger-treatment-patients.html>

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