

Study clarifies surgical options for kidney cancer

July 24 2013

Surgery is often the first step in treating kidney cancer, and new data from the University of Rochester Medical Center, which contradicts earlier research, questions whether removal of only the tumor (partial nephrectomy) is better than removing the entire kidney (radical nephrectomy).

The decided trend for the past decade has been toward a partial resection in the case of smaller cancers. It was based on several earlier studies suggesting that it's better to save as much [kidney tissue](#) as possible, and thus preserve [kidney function](#) and reduce the likelihood of [kidney failure](#) in the long run. Many physicians inferred that a [radical nephrectomy](#) would be worse for [kidney cancer patients](#), due to a concern that even mild or moderate dysfunction in the remaining kidney could lead to an earlier death.

However, the URM found the opposite to be true: that losing a whole kidney to surgery does not translate into poorer outcomes for patients. In fact, those people who received a [partial nephrectomy](#) did not have improved survival, according to the study published this month in *European Urology*.

"Our data appears to seriously question the assumption that by saving kidney tissue, we are helping patients avoid future kidney failure," said Edward Messing, M.D., chair of Urology at URM. "It may be that losing kidney tissue from surgery is not the same as losing kidney function from medical diseases like diabetes or hypertension."

The latter point is an important one for patients who're weighing [surgical options](#), Messing added. Often, all types of kidney impairments are lumped into one category. It may be, however, that common medical conditions such as [high blood pressure](#) or diabetes take the biggest toll on kidney health. Therefore, if a patient is otherwise healthy and the second kidney is functioning well, he or she can safely consider a radical nephrectomy, if that seems to be the best option for cancer removal, he said.

Emelian N. Scosyrev, Ph.D., an [epidemiologist](#) and assistant professor of Urology, led the analysis of more than 500 patients registered by the European Organization for Research and Treatment of Cancer randomized trial from 1992 to 2003.

In collaboration with the EORTC investigators, Scosyrev looked at various stages of renal dysfunction based on the EORTC trial data. Specifically researchers compared the incidence of moderate [kidney dysfunction](#), advanced kidney disease, and kidney failure among two groups: 255 people who were treated with a partial nephrectomy and 259 patients who had a radical nephrectomy. The latter surgery removes the entire organ, adrenal gland, and surrounding tissue. All patients had been diagnosed with a small kidney cancer and had a normal-functioning second kidney.

The URM trial analyzed each patient's kidney function for a median of seven years after surgery, and continued to follow the cohort for approximately nine years, to determine the impact of both surgeries on patient survival.

At the median follow-up of 6.7 years, the frequency of moderate kidney dysfunction was 20% lower among those patients who received a partial nephrectomy, compared with those randomized to a radical nephrectomy. However, the better overall kidney function in the partial

nephrectomy group did not result in improved survival. Indeed, at the last follow-up point of about nine years, fewer deaths had occurred in the radical nephrectomy group, the study showed.

Kidney failure was the same in both groups, at about 1.5 percent. This outcome was a bit surprising, Messing said, as it demonstrated that patients in the radical nephrectomy group who had initially suffered a mild or moderate degree of kidney dysfunction did not see their condition progress to kidney failure. When choosing a surgery, therefore, it's important to consider the best option for removing the cancer in the broader context of other medical conditions that impact kidneys.

The most common type of kidney cancer is renal cell carcinoma, which forms in the lining of the tubes that filter blood and remove waste. An estimated 65,000 new cases of [kidney cancer](#) will be diagnosed in the United States this year, and approximately 13,700 deaths are expected to occur, according to the National Cancer Institute.

More information: www.europeanurology.com/article/S0302-2838%2813%2900659-3/abstract

Provided by University of Rochester Medical Center

Citation: Study clarifies surgical options for kidney cancer (2013, July 24) retrieved 19 April 2024 from <https://medicalxpress.com/news/2013-07-surgical-options-kidney-cancer.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--