Kidney Cancer Surgery Often Determined By Surgeons' Practice Style, Not Medical Factors, Study Shows

ScienceDaily (Mar. 10, 2008) — A new study reveals that the type of surgery a patient with kidney cancer receives depends more on the surgeon's preference than on the patient's tumor size, demographic characteristics, or general medical health. The findings indicate that patients with kidney cancer often may not be receiving the most appropriate surgical care.

Open radical nephrectomy is the standard surgical treatment for patients with localized kidney cancer, but partial nephrectomy and laparoscopic surgery have emerged as attractive alternatives that are less invasive but equally effective. However, many physicians have not adopted these surgical techniques despite their benefits.

To investigate the potential barriers to adoption of partial nephrectomy and renal laparoscopy, David Miller, MD of the University of California Los Angeles and colleagues reviewed data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) program and the Centers for Medicare and Medicaid Services (CMS). They identified 5,483 Medicare beneficiaries diagnosed between 1997 and 2002 with localized kidney cancer, determined the type of surgery received by each patient, and identified the primary surgeon for each case.

The researchers assessed the use of radical nephrectomy, partial nephrectomy, and laparoscopy among these patients, noting surgeon- and patient-based factors that may have contributed to decisions about which type of surgery was used. A total of 611 patients underwent partial nephrectomies and 4,872 underwent radical nephrectomies, 515 of which were performed laparoscopically. After taking into consideration factors including patient demographics, comorbidity, tumor size, and volume of surgeries done by each surgeon, there was considerable variation among surgeons in the type of surgery they performed—an 18.1% variance for partial nephrectomy and a 37.4% variance for laparoscopy. Factors based on surgeons' practice style contributed more to these variances than did patient characteristics.

The authors concluded that "for many older patients with kidney cancer, the surgery provided may depend more on their surgeon's practice style than on the characteristics of the patient and his or her disease." They added that "the timely dismantling of residual barriers to surgeons' adoption of partial nephrectomy and laparoscopy is an important step toward improving the quality of care provided to patients with kidney cancer."

Article: "Diffusion of Surgical Innovation Among Patients With Kidney Cancer." David C. Miller, Christopher S. Saigal, Mousumi Banerjee, Jan Hanley, Mark S. Litwin, and the Urologic Diseases in America project. CANCER; Published Online: March 10, 2008 (DOI: 10.1002/cncr.23372); Print Issue Date: April 15, 2008.

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