

 SMALL RENAL MASSES

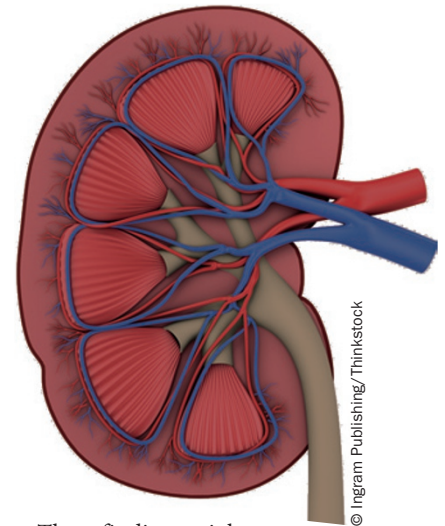
## Stable long-term renal function after partial nephrectomy in solitary kidney

Patients with a solitary kidney comprise a unique population for the study of renal function after nephrectomy. Although a shift from radical nephrectomy to nephron-sparing surgery has occurred for small renal masses, utilization data from national databases—in the USA at least—continue to demonstrate the overuse of radical nephrectomy. As awareness of the importance of maximizing renal function outcomes increases, data supporting the use of partial nephrectomy are welcome.

Into this arena step Amr Fergany and his team of researchers with their latest study, recently published online in the *Journal of Urology*. Fergany and colleagues previously reported the renal function outcomes of 400 patients with a solitary kidney (anatomical or functional) at a mean interval of 3.6 years after surgery. Now, they present the renal function and oncological outcomes at 5 and 10 years after partial nephrectomy, the longest follow-up period reported to date.

The investigators identified 282 patients from the original cohort who were followed up for a median of 175 months; mean pathological tumour size in these patients was 3.8 cm. In total, 26 patients died from their renal cancer, corresponding to cancer-specific survival of 95.1% at 5 years and 91.9% at 10 years.

Overall, 25 patients underwent dialysis at least once and 17 patients (6%) required permanent dialysis or transplantation. Fergany *et al.* note that the proportion of patients requiring dialysis corresponds with previous studies of shorter follow-up duration, leading them to propose that after an initial decline, renal function remains relatively stable in these patients. Multivariable analysis revealed that patient age, tumour size, percentage of renal parenchyma spared and preoperative estimated glomerular filtration rate—but not ischaemia—were significant predictors of ultimate renal function.



These findings might demonstrate satisfactory renal outcomes, but the authors are keen to emphasize the importance of careful use of radical nephrectomy to avoid the occurrence of a solitary kidney in the first place.

Sarah Payton

**Original article** Ching, C. B. *et al.* Five to ten year follow-up of open partial nephrectomy in a solitary kidney. *J. Urol.* doi:10.1016/j.juro.2013.03.028