

Robotic partial nephrectomy in highly complex renal tumors

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Objective

Robotic partial nephrectomy has gained acceptance for small renal tumors while minimizing warm ischemia time. In experienced hands, highly complex tumors are challenge for minimal invasive approach. We represent our experience, illustrated with video, for bilateral renal tumors and tumor in single kidney.

Methods

Twelve patients with highly complex renal masses (bilateral tumors, tumor in solitary kidney, large tumor over 4cm in patients with moderate renal insufficiency) underwent robotic partial nephrectomy. The renal artery and vein were clamped with bulldog clamps and for hemostasis were used suture closure and Floseal.

Results

In past 2 years twelve patients with highly complex renal tumors underwent robotic partial nephrectomy. The average console time was 90 (75-100) minutes, mean warm ischemia time was 18 (15-21) minutes. The average blood lose was 60 (35-100) ml, mobilization for all the patients was at the second day and the mean hospital stay was 5 (4-6) days.

Conclusions

Robotic partial nephrectomy is a safe minimal invasive procedure applicable also for patients with highly complex renal masses. Experienced surgical team with the da Vinci surgical system improve the capability and the advantages of minimal invasive approach for very complicated cases.