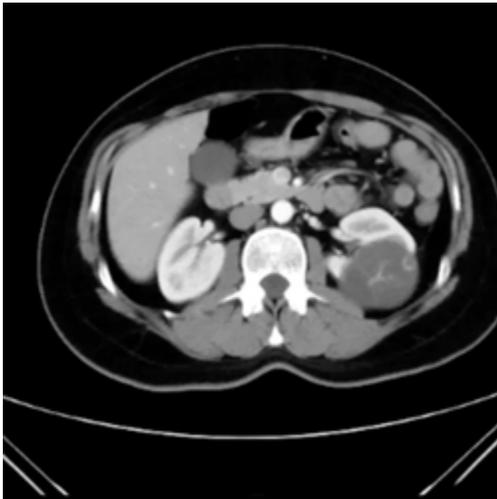


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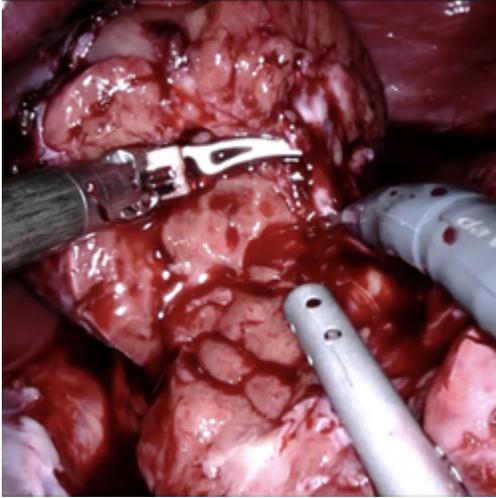
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Introduction & Objectives: To present the outcomes of robotic partial nephrectomy (RAPN) in cystic renal masses.

Materials & Methods: Between 2014 and 2019, RAPN was performed on 9 patients with cystic renal masses. Female:Male ratio was 4:5. Two of the masses were on the right, 7 masses were on the left side. R.E.N.A.L. (Radius, Exo/Endophytic, Nearness, Anterior/Posterior, Location) nephrometry and PADUA scores were calculated according to pre-operative computerized tomography (CT) and/or magnetic resonance imaging (MRI) investigations (Picture 1). The perioperative complications (0-30 days) were classified due to Clavien classification. All procedures were performed with da Vinci-Si or da Vinci-Xi robotic systems by 4 surgeons (TE, MDB, YK and AEC).



Results: Mean patient age was 50 (36-68) years. Mean tumor sizes reported by imaging and pathology were 46.6 (32-72) mm and 41.6 (20-70) mm, respectively. R.E.N.A.L. nephrometry and PADUA scores were 7.2 and 7.7, respectively. Mean console time was 186.6 (90-300) minutes. Mean estimated blood loss was 127.7 (50-300) ml. Mean warm ischemia time was 23.3 (0-35) minutes (Picture 2). No perioperative complications were reported. No cystic renal mass entry or rupture occurred during surgery. Mean hospital stay was 4.5 (3-6) days. Three and 4 robotic arms were used in 7 and 2 patients, respectively. Renal cell carcinoma (RCC) was reported in 7 cases with clear surgical margins (clear cell RCC, n=3; cystic cell RCC, n=2 and translocation type RCC, n=1). 2 cases had benign results (xanthogranulomatous pyelonephritis and mixed epithelial stromal tumor). During a mean follow up of 14.5 months, no local recurrence or metastasis was identified.



Conclusions: RAPN is a safe minimally invasive procedure in the surgical management of cystic renal masses.