

AB076. The comparison of the robot-assisted partial nephrectomy with two different trocar layout methods

Yu Fang, Hua-Mao Ye, Yang Wang

Department of Urology, Changhai Hospital, Shanghai 200000, China

Background: To analyze the effect of two different trocar layout methods, which include the midline and lateral transperitoneal approach, on the robotic-assisted partial nephrectomy (RAPN).

Methods: Transperitoneal approach was used in all the cases. In the midline layout group, 12-mm camera port was placed 2 cm to navel, besides the rectus abdominis. An 8-mm robotic trocar was placed on the lateral margin of the rectus abdominis, 3 cm from the costal margin approximately. Another 8-mm robotic arm trocar was placed to the point that 5 cm away from anterior superior iliac spine. Insert the 12-mm assistant trocar next to the rectus abdominis and on the right side, 5-mm assistant trocar was planted in the central line of the lower abdomen. For the lateral transperitoneal approach, place the 12-mm Trocar located in the midpoint between the nephroid projection and navel. The 8-mm robot Trocar is placed on the side of the lens hole, with the distance greater than 3 cm. The other 8-mm robot trocar was suggested to be put in the place greater than 3 cm from the iliac crest. The 12-mm auxiliary Trocar is placed above the navel. A 5-mm auxiliary Trocar was placed in the midline of the xiphoid process.

Results: In the midline layout group, 50 cases were

included, among which, the mean operation duration was 254.8 min (140–380 min), blood loss was 164.8 mL (30–1,000 mL), warm ischemic time was 27.2 min (7–50 min). In these cases, the conversion to open surgery was required in one case because of the limited operation view and 2,400 mL blood was transfused to that patient. In the lateral transperitoneal approach group, 8 cases were included and the mean operation duration was 239 min (160–310 min), blood loss during the surgery was 140 mL (100–200 mL), warm ischemic time is 28.5 min (12–46 min). In the midline layout cases, the operative field of vision is much closer to that of an ordinary laparoscopic view and the scope is relatively far from the kidney. No open surgery was conversed and no blood transfusion happened. In these cases, the field of view was larger and the robot arm had a wider range of motion. In the side layout group, the speculum was relatively closer to the kidney with the small operation view. The robot arm had a small range of motion, but it had a more complete field of vision for the upper pole of the dorsal kidney.

Conclusions: Both surgical methods are suitable for RAPN. The midline layout method is closer to the traditional laparoscopic view, which can be used more widely. The lateral layout is more suitable for kidney tumors located on the dorsal upper pole of the kidney.

Keywords: Kidney; surgical methods

doi: 10.21037/tau.2018.AB076

Cite this abstract as: Fang Y, Ye HM, Wang Y. The comparison of the robot-assisted partial nephrectomy with two different trocar layout methods. *Transl Androl Urol* 2018;7(Suppl 5):AB076. doi: 10.21037/tau.2018.AB076