

AB013. Strategy and advantages of robot-assisted laparoscopic surgery for renal cell carcinoma with inferior vena cava tumor thrombus

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Background: To evaluate the efficacy and safety of robotic assisted laparoscopic renal cell carcinoma with inferior vena cava (IVC) tumor thrombus, and to explore the advantages and technical improvements of robotic surgery.

Methods: The clinical data of 20 patients with renal cell carcinoma associated with IVC tumor thrombus were analyzed retrospectively from January 2013 to March 2017. 15 cases were right renal cell carcinoma and 5 cases were left. Among them, 9 cases had Mayo grade I tumor embolus, 9 cases had grade II tumor embolus and 2 cases had grade III tumor embolus. All operations were performed with

complete robot-assisted laparoscopic radical resection of renal cell carcinoma and removal of vena cava thrombus.

Results: All the 20 cases were successfully operated, none of them were open conversion and large vessel injury. The average age was 45–66 years old, the size of the tumor was 5–14.2 cm, the time of operation was 240–375 min, the ischemia time was 19–30 min, the amount of bleeding was 100–1,200 mL, the length of the tumor thrombus was 3.1–16 cm, the average time of hospitalization was 6–8 days.

Conclusions: Surgery of renal cell carcinoma with inferior vena cava thrombus is difficult. It needs to be done with rich surgical experience. The perioperative complications and operative effect of robotic surgery are satisfactory. Through a series of technical optimization, the safety of operation is improved significantly.

Keywords: Robot-assisted laparoscopic surgery; renal cell carcinoma; inferior vena cava tumor thrombus (IVC tumor thrombus)

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