

Minimally invasive colorectal resection in kidney transplant recipients: Technical tips, short and long-term outcomes

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Objective: This study aimed to prove the safety and feasibility of minimally invasive (laparoscopic and robotic) colorectal resection in kidney recipients by evaluating the technical protocol and reviewing short- and long-term outcomes.

Background: Patients on immunosuppressive medications and those with comorbidities who receive organ transplants have increased morbidity and mortality, and prolonged postoperative recovery after major open surgery, including colorectal surgery. The benefits of minimal-access surgery remain debatable.

Methods

Design: Retrospective review

Setting: Division of Colorectal Surgery, Yonsei University College of Medicine, South Korea, May 2007–August 2012

Patients: Ten kidney transplant patients diagnosed with colorectal cancer were evaluated

Interventions: All patients underwent laparoscopic or robotic colorectal resections

Main Outcome Measures: Technical tips, short- and long-term outcomes

Results: The mean patient age was 56.8 ± 9.91 years and 50% of the patients were male. American Society of Anesthesiologists scores were II in 60% of the patients and I and III in 20%, each. Anterior and low anterior resections were performed in 40% of the patients each, two patients underwent ileostomy, and 20% and 10% underwent right and left hemicolectomy, respectively. Most (90%) procedures were performed laparoscopically and 10% were performed robotically. There were no conversions. Mean operating time was 192.5 ± 15 min, blood loss was 30 ± 50 mL, and mean hospital stay was 9.7 ± 5.5 days. Two (20%) patients had postoperative complications: wound seroma and chyloperitoneum. Over a mean follow-up period of 31.4 ± 21.57 months, no mortality occurred. One patient showed liver metastasis 1 year postoperatively. No kidney rejection occurred. Among the six patients followed for a mean of 43.5 ± 9.84 months, 83.3% were 3-year disease free and the overall survival rate was 100%.

Conclusion: Minimally invasive colorectal resection is likely to be safe and feasible, with fewer complications and acceptable short- and long-term outcomes, in kidney transplant recipients. However, a prospective randomized study would likely provide more convincing findings.

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