

## Colorectal Surgery Indications and Outcomes in Solid Organ Transplant Recipients

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**Introduction:** Solid organ transplant (SOT) recipients represent a high-risk group of medical and surgical complications. Few studies have looked at the outcomes of SOT recipients who require subsequent colorectal surgery (CRS). We sought to describe our experience with this patient population.

**Methods:** A retrospective chart review of all CRS patients from July 2013 through July 2019 was performed to identify patients with a history of SOT. Patients were included if they had a history of SOT and later underwent colectomy and/or proctectomy. Demographics, clinical characteristics, and outcomes were analyzed.

**Results:** There were 18 patients (56% female, mean age  $57 \pm 10$  years) with a history of SOT who underwent colectomy (72% subtotal, 22% total) and/or proctectomy (6% total, 6% partial) during the study period. The most common SOT was kidney (56%), followed by liver (39%), and heart (6%). All patients were on immunosuppressive therapy at time of CRS (44% single, 22% double, 33% triple). Diverticulitis (72%) was the most frequent indication for colectomy, followed by colon or rectal adenocarcinoma (22%), and other (6%). There were 7 (39%) patients with perforated diverticulitis, all of which had previous kidney transplants, and over half (57%) of these occurred within 10 days of SOT. One or more post-operative complications occurred in 39% of patients and included surgical site infection (n=3), bacteremia (n=3), NSTEMI (n=2), and acute hemorrhage (n=1). There were 13 (72%) patients admitted to the intensive care unit (ICU) post-operatively, with a median ICU length of stay (LOS) of 3 [3-4] days. Median hospital LOS was 12 [9-17] days. Overall 12-month mortality was 6% (n=1).

**Conclusions:** Although rare, colectomy and/or proctectomy was most often performed for diverticulitis in patients with a history of SOT. Interestingly, patients with history of kidney transplant accounted for all of the cases of perforated diverticulitis. Additional studies are needed to better elucidate which patients are at risk in this complex patient population.