Clostridium difficile infection is associated with graft loss in solid organ transplant recipients

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Clostridium difficile infection (CDI) is a leading cause of infectious diarrhea in solid organ transplant recipients (SOT). We aimed to assess incidence, risk factors, and outcome of CDI within the Swiss Transplant Cohort Study (STCS). We performed a case-control study of SOT recipients in the STCS diagnosed with CDI between May 2008 and August 2013. We matched 2 control subjects per case by age at transplantation, sex, and transplanted organ. A multivariable analysis was performed using conditional logistic regression to identify risk factors and evaluate outcome of CDI. Two thousand one hundred fifty-eight SOT recipients, comprising 87 cases of CDI and 174 matched controls were included. The overall CDI rate per 10 000 patient days was 0.47 (95% confidence interval [CI] 0.38-0.58), with the highest rate in lung (1.48, 95% CI 0.93-2.24). In multivariable analysis, proven infections (hazard ratio [HR] 2.82, 95% CI 1.29-6.19) and antibiotic treatments (HR 4.51, 95% CI 2.03-10.0) during the preceding 3 months were independently associated with the development of CDI. Despite mild clinical presentations, recipients acquiring CDI posttransplantation had an increased risk of graft loss (HR 2.24, 95% CI 1.15-4.37; P = .02). These findings may help to improve the management of SOT recipients.