OPEN ACCESS Freely available online

ISSN: 2167-0889
Journal of Liver

Short Communication

Outcomes of Liver Transplant in Primary Sclerosing Cholangitis with Coexisting Inflammatory Bowel Disease

Kenji Yamada*

Department of Hepatology, Kyoto University, Kyoto, Japan

DESCRIPTION

Primary Sclerosing Cholangitis (PSC) is a chronic cholestatic liver disease characterized by progressive inflammation and fibrosis of the bile ducts, often leading to end-stage liver disease requiring transplantation. A significant proportion of patients with PSC also have an underlying Inflammatory Bowel Disease (IBD), such as ulcerative colitis or Crohn's disease. The coexistence of these conditions introduces complexities in managing patients undergoing liver transplantation, with potential implications for post-transplant outcomes.

The interaction between PSC and IBD has been studied extensively, yet challenges remain in understanding how IBD affects the outcomes of liver transplant recipients with PSC. One of the key considerations is the increased risk of Colorectal Cancer (CRC) in PSC-IBD patients. The presence of PSC is associated with a higher prevalence of CRC compared to IBD alone, necessitating vigilant surveillance and management. Liver transplant recipients with PSC and underlying IBD require close monitoring post-transplant, as the immunosuppressive therapy required to prevent graft rejection may further influence the course of IBD and the risk of malignancy.

The course of IBD in the post-transplant setting is variable. Some studies suggest that liver transplantation may lead to changes in the clinical activity of IBD, with a subset of patients experiencing exacerbations or new-onset colitis post-transplant. This could be attributed to the impact of immunosuppressive medications, such as calcineurin inhibitors or corticosteroids, which can alter the immune response and potentially modulate intestinal inflammation. Balancing immunosuppression to achieve optimal graft function while minimizing adverse effects on IBD remains a critical aspect of management in this patient population.

Another concern in PSC-IBD patients undergoing liver transplantation is the risk of biliary complications. These may include recurrent PSC, bile duct strictures, or cholangitis, which can adversely affect graft survival. Recurrent PSC, in particular, poses a significant challenge, as it has been observed in a notable proportion of transplant recipients. Factors contributing to recurrent PSC are not fully understood but may involve immune dysregulation, genetic predisposition, or persistent gut-liver crosstalk mediated by the underlying IBD. Further research is needed to clarify these mechanisms and identify strategies to mitigate the risk of recurrence.

The presence of IBD in PSC patients undergoing liver transplantation also raises considerations for perioperative and long-term management. Surgical complications, such as infections or delayed wound healing, may occur more frequently in these patients due to the systemic inflammation associated with IBD or the use of immunosuppressive therapy. Nutritional status, often compromised in patients with advanced liver disease and IBD, must be optimized to support recovery and improve outcomes. Multidisciplinary care involving hepatologists, gastroenterologists, transplant surgeons, and dietitians is essential to address these complex needs effectively.

Immunosuppressive regimens in liver transplant recipients with PSC and IBD require careful selection to balance the risk of graft rejection, recurrent PSC and IBD flares. Agents such as tacrolimus and cyclosporine, commonly used as part of standard immunosuppressive protocols, may have differential effects on IBD activity. Additionally, the introduction of biologic therapies for IBD, including anti-TNF agents or newer biologics targeting specific inflammatory pathways, has expanded the therapeutic options for managing post-transplant IBD. However, the safety and efficacy of these agents in the transplant setting require further evaluation through robust clinical studies.

Despite advancements in liver transplantation and IBD management, gaps remain in understanding how to improve outcomes for PSC-IBD patients. The heterogeneity of IBD presentation and progression, coupled with the unique challenges posed by liver transplantation, necessitates individualized approaches to care. Future research should focus on identifying biomarkers to predict outcomes, refining immunosuppressive protocols and exploring novel therapies that

Correspondence to: Kenji Yamada, Department of Hepatology, Kyoto University, Kyoto, Japan, E-mail: yemadakenji@gmail.com

Received: 25-Nov-2024, Manuscript No. JLR-24-28399; **Editor assigned:** 27-Nov-2024, PreQC No. JLR-24-28399 (PQ); **Reviewed:** 11-Dec-2024, QC No. JLR-24-28399; **Revised:** 18-Dec-2024, Manuscript No. JLR-24-28399 (R); **Published:** 26-Dec-2024, DOI: 10.35248/2167-0889.24.13.240

Citation: Yamada K (2024). Outcomes of Liver Transplant in Primary Sclerosing Cholangitis with Coexisting Inflammatory Bowel Disease. J Liver. 13:240.

address both graft preservation and IBD control. Collaborative efforts across institutions and specialties will be vital in addressing these knowledge gaps and enhancing care for this complex patient population.

CONCLUSION

In conclusion, the effects of underlying IBD on the outcomes of primary sclerosing cholangitis liver transplant recipients involve a multifaceted interplay of factors, including cancer risk, IBD activity, biliary complications, and the impact of immunosuppressive therapy. Vigilant monitoring, personalized treatment strategies and multidisciplinary care are essential to optimize outcomes for these patients. As research advances, the potential to improve survival rates, quality of life and long-term health for PSC-IBD liver transplant recipients continues to grow.

REFERENCES

1. Ho K, Chan A. Liver transplantation for hepatocellular carcinoma: Current status in Hong Kong, China. Hepatobiliary Pancreat Dis Int. 2024.
2. Tovikkai P, Soontarinka S, Raksakietisak M, Tovikkai C, Pongraweewan O, Siriussawakul A, et al. The association of intraoperative hypotension during orthotopic liver transplantation and post-transplant outcomes. Asian J Surg. 2024.
3. Deep A, Alexander EC, Brierley J, Damian M, Gupta A, McLin V, et al. Paediatric acute liver failure: A multidisciplinary perspective on when a critically ill child is unsuitable for liver transplantation. Lancet Child Adolesc Health. 2024;8(12):921-932.
4. Xia Q, Feng MX. Challenges for pediatric liver transplantation in mainland China: Where we are and where to go. Reflections from worldwide largest pediatric liver transplantation program. Hepatobiliary Pancreat Dis Int. 2024.
5. de Goeij FH, Wehrle CJ, Abassi F, Satish S, Zhang M, Panconesi R, et al. Mastering the narrative: Precision reporting of risk and outcomes in liver transplantation. J Hepatol. 2024.
6. van Munster KN, Bergquist A, Ponsioen CY. Inflammatory bowel disease and primary sclerosing cholangitis: One disease or two?. J Hepatol. 2024;80(1):155-168.
7. Åberg F, Sallinen V, Tuominen S, Adam R, Karam V, Mirza D, et al. Cyclosporine vs. tacrolimus after liver transplantation for primary sclerosing cholangitis–a propensity score-matched intention-to-treat analysis. J Hepatol. 2024;80(1):99-108.
8. D'Amato D, Carbone M. Prognostic models and autoimmune liver diseases. Best Pract Res Clin Gastroenterol. 2023;101878.
9. Sucu S, Basarir KE, Mihaylov P, Balik E, Lee JT, Fridell JA, et al. Impact of gut microbiota on liver transplantation. Am J Transplant. 2023;23(10):1485-1495.
10. Liu X, Liu M, Zhao M, Li P, Gao C, Fan X, et al. Fecal microbiota transplantation for the management of autoimmune diseases: Potential mechanisms and challenges. J Autoimmun. 2023;103109