Perspective
Volume 6:2, 2022

Journal of Hepatology and Pancreatic Science

ISSN: 2573-4563 Open Access

Cardiovascular and Metabolic Syndrome after Liver Transplantation

Salvatore Eisenberg*

Divisions of Cardiology and Clinical Epidemiology, Jewish General Hospital/McGill University, Montreal, Quebec, Canada

Introduction

The majority of liver transplants are done for chronic liver disease with decompensation in the form of jaundice, ascites, coagulopathy, encephalopathy, or a combination of these. A tiny percentage of liver transplants are done urgently for acute liver failure. Patients with a MELD score >15 and decompensated cirrhosis symptoms that severely lower quality of life are indications for liver transplantation (LT). Hepatocellular carcinoma, variceal haemorrhage, hepatorenal syndrome, spontaneous bacterial peritonitis, refractory ascites, porto-pulmonary syndrome, or hepatopulmonary syndrome are particular characteristics that are also linked to considerable mortality. With no available alternatives, such as dialysis for kidney disease or ventricular assist devices for heart failure, LT is a life-saving intervention for these patients [1].

Description

In Western nations, non-alcoholic fatty liver disease (NAFLD) is the most frequent cause of chronic liver disease and is expected to overtake liver cancer as the most common reason for liver transplantation by 2030. The metabolic syndrome's liver manifestation, NAFLD, runs the risk of developing into non-alcoholic steatohepatitis (NASH), which is characterised by liver fibrosis and liver inflammation. It has long been recognised that metabolic syndrome and, by extension, insulin resistance are significant pathophysiological factors in the emergence of NASH. The 2017 systematic analysis for the global burden of illness, which examined the causes of cirrhosis and variations in its occurrence over the previous 27 years, best captures this. Despite decreases in mortality for all other cirrhosis etiologies, the study found a consistent mortality rate for NASH cirrhosis. NAFLD is increasing while Hepatitis C is falling as a reason for LT, according to data from the Scientific Registry of Transplant recipients, and the average age of transplant applicants is also rising. A trend toward obesity, insulin resistance, hypertension, dyslipidemia, and type-2 diabetes is part of this transition, giving NAFLD the reputation of being the liver's expression of the metabolic syndrome [2].

In a major cross-sectional investigation, patients were diagnosed with metabolic syndrome at a rate of 5.4% before transplantation and 59.1% after. The prevalence of metabolic syndrome among LT recipients is more than twice as high as the age-adjusted prevalence of 23.7% found in the Western population. Furthermore, it is increasingly clear that the methods for identifying and treating the modifiable risk factors that contribute to higher CV mortality are insufficient. There was a significant mismatch in how LT patients and their healthcare providers perceived who was in charge of providing patient care with regard to modifiable cardiovascular and metabolic risk variables, according to a 2021. Most informal caregivers and LT recipients anticipated they would obtain treatment for these issues from their transplant providers or other experts, in contrast to the close to 70% of healthcare professionals who felt it was the patient's PCP's obligation (cardiologist, endocrinologist, nephrologist, surgeon). This study also showed that LT patients' exposure to the burden of CV causes of morbidity and mortality was underreported. Only a third of the patients' providers felt confident managing their patients' CVD risk factors, only 50% of the patients' providers felt that their patients' CVD risk factors were well controlled, and only 13% of the patients' providers felt that discussing CVD risk factors with post-LT patients was comfortable. This highlights a care gap with significant potential for intervention to reduce rates of CVD mortality in LT recipients [3-5].

An altered metabolic profile is a result of the higher prevalence of obesity, hypertension, dyslipidemia, and diabetes among LT recipients. A higher incidence of CVD, recurrent NASH, and recurrent Hepatitis C, as well as its associated consequences, have all been linked to the development of metabolic syndrome after transplant. Because long-term morbidity and mortality may be affected by the development of metabolic syndrome after transplant, it is crucial to closely follow these patients for the onset of the condition [5].

Conclusion

In the pre- and post-LT population, rigorous monitoring for HTN, diabetes, and hyperlipidemia is crucial to prevent CV problems and the development of metabolic syndrome. The significance of reducing modifiable risk factors and the necessity of maintaining interdisciplinary continuity should be emphasized by transplant surgeons. To decrease the long-term, extra-hepatic causes of post-LT mortality, there must be higher levels of provider, patient, and caregiver education about these risk factors in addition to medical screening and management of modifiable risk variables. To avoid crucial data and best practises slipping through the gaps, a mechanism for multidisciplinary collaboration is essential.

Conflicts of Interest

The authors declare no conflict of interest.

References

1. Merion, Robert M., Douglas E. Schaubel, Dawn M. Dykstra, and Richard B. Freeman, et al. "The survival benefit of liver transplantation." *Am J Transplant* 5 (2005): 307-313.
2. Estes, Chris, Homie Razavi, Rohit Loomba, Zobair Younossi, et al. "Modeling the epidemic of nonalcoholic fatty liver disease demonstrates an exponential increase in burden of disease." *Hepatol* 67 (2018): 123-133.
3. VanWagner, Lisa B., Elisa Gordon, Lindsay Adamski, and Megan Kosirog, et al. "Liver Transplant Recipient, Caregiver, and Provider Perceptions of Cardiovascular Disease and Related Risk Factors After Transplant." *Liver Transpl* 27 (2021): 668-683.
4. Taneja, Sunil, and Akash Roy. "Nonalcoholic steatohepatitis recurrence after liver transplant." *Transl Gastroenterol Hepatol* 5 (2020): 24.

***Address for Correspondence:** Salvatore Eisenberg, Divisions of Cardiology and Clinical Epidemiology, Jewish General Hospital/McGill University, Montreal, Quebec, Canada; E-mail: Eisenberg.salvatore@gmail.com*

Received: 01-Mar-2022, Manuscript No. hps-22-69523; **Editor assigned:** 03-Mar-2022, Pre QC No. P-69523; **Reviewed:** 17-Mar-2022, QC No. Q-69523; **Revised:** 21-Mar-2022, Manuscript No. R-69523; **Published:** 29-Mar-2022, DOI: 10.37421/2573-4563.2022.6.184

5. Mottillo, Salvatore, Kristian B. Filion, Jacques Genest, Lawrence Joseph, et al. "The metabolic syndrome and cardiovascular risk a systematic review and meta-analysis." *J Am Coll Cardiol* 56 (2010): 1113-1132.

How to cite this article: Eisenberg, Salvatore. "Cardiovascular and Metabolic Syndrome after Liver Transplantation." Hepatol Pancreat Sci 6 (2022): 184.