A need for patient-centered care in managing liver cirrhosis

Eileen L. Yoon

Division of Gastroenterology and Hepatology, Department of Internal Medicine, Sanggye Paik Hospital, Inje University College of Medicine, Seoul, Korea.

Correspondence to: Eileen L. Yoon (ORCID ID 0000-0003-0474-048X)

Division of Gastroenterology and Hepatology, Department of Internal Medicine, Sanggye Paik Hospital, Inje University College of Medicine

1342, Dongil-ro, Nowon-gu, Seoul, 01757, Republic of Korea

Tel: +82-2-950-8824

Fax: +82-2-950-8886

E-mail: mseileen80@gmail.com

Running Title: Patient-centered care for liver cirrhosis

Financial support: None
Patients with new-onset liver cirrhosis frequently suffer psychologically from the stigma of an incurable disease, regardless of the presence of associated symptoms. Physically, patients initially present with acute decompensating events, such as jaundice, ascites, variceal hemorrhage, and overt hepatic encephalopathy. In addition, liver cirrhosis is notorious for having high rates of symptom prevalence beyond this decompensating events. Symptoms include pain (30%-79%), breathlessness (20%-88%), muscle cramps (56%-68%), insomnia (26%-77%), depression (4.5%-64%), and anxiety (14%-45%). These symptoms progressively deteriorate the quality of life of liver cirrhosis patients. Frequent liver cirrhosis symptoms, such as fatigue, poor appetite, and sleep disturbance, can be overlooked by physicians they are related to physical discomfort rather than psychological problems. Treatment for liver cirrhosis has been limited to etiology-oriented and liver transplant-or-palliative care.

In the current Clinical and Molecular Hepatology issue, Jang et al. reported that newly diagnosed liver cirrhosis patients had higher incidence rates of suicide. It was 2.59 times higher in the first two years after diagnosis and 3.72 times higher in patients between 18 and 49 years old compared to the rates in the matched cohort group. These suicide risks were similar between alcohol-related vs. non-alcohol-related, and compensated vs. decompensated. Previous studies on the association of liver cirrhosis and depression were based on a limited number of cases, self-reported liver disease, and suicidal ideation. They classified depression using either the Beck depression inventory or the Hamilton depression rating scale, which were far from the physician's diagnosis. The operational diagnosis of liver cirrhosis used in the current study may be clinically inaccurate. However, this study is unique because it is based on nationwide representative claim data. Further, it evaluated the association of liver cirrhosis and unambiguous objective cause of death, namely suicide. The higher incidence rate in younger liver cirrhosis patients is distinct from that of the general population. According to the Korean Statistical Information Service, the number of self-harm cases that led to suicidal cases was 26.9 per 100,000 persons, and it comprised 4.7% of the total deaths in 2019. The frequency of suicidal cases increases with higher age groups; 67.8 per 100,000 persons in their 80's, 46.2 per 100,000 persons in their 70's, and 33 per 100,000 persons in their 60's. The underlying mechanism for the association between the
psychological substrate and liver cirrhosis is unclear. **Free triiodothyronine** levels lower than 3.5 mol/L among the chronic hepatitis B patients have been associated with clinical depression (odds ratio (OR) 7.85, 95% confidence interval (C.I.) 1.839-33.547), and clinical insomnia (OR 3.91, 95% C.I 1.417-10.789), respectively.\textsuperscript{13} Blood serotonin level was decreased in liver cirrhosis patients with depressive disorder.\textsuperscript{14,15} Disarrangement of melatonin homeostasis was presumed to be related to daytime sleepiness and fatigue.\textsuperscript{16} Nevertheless, further studies on the possible mechanisms would be needed.

These results support the need for patient-centered interventions to improve patients' quality of life with liver cirrhosis. Paradoxically, a group with anxiety/depression showed longer overall survival than the non-disorder group among patients with hepatocellular carcinoma.\textsuperscript{17} Patients need education regarding how to take care of themselves during unpredictable decompensating events. They also need to be briefed regarding their treatment goals and how they can prepare for their future lives.\textsuperscript{18} Nonhospice palliative care for end-stage liver disease is frequently misconstrued as end-of-life care by both patients and healthcare providers.\textsuperscript{4} However, it is not far from clinical practice. They suggested using screening tools to integrate palliative care intervention in the earlier stages of liver cirrhosis. These included 1) Child-Pugh class C, 2) more than one liver-related admission within the last six months, 3) ongoing alcohol use in the context of known alcohol-associated liver disease, 4) unsuitability for liver transplantation, and 5) World Health Organization/Eastern Cooperative Oncology Group performance score of 3 or 4.\textsuperscript{4} An ongoing multicenter randomized controlled trial aims to assess and compare the effectiveness of palliative care led by a specialist (non-hepatologist) and a trained hepatologist.\textsuperscript{18} The change in patients' quality of life in the first three months is the primary outcome. The results of this trial will provide scientific evidence for the need for integration of palliative care in routine hepatology care. Furthermore, evidence-based profit margins for palliative care services should be implemented in the healthcare system.
References


12. Korean Suicide Prevention Center: Current state of suicide according to the baseline


