Curing Hepatitis C Improves Cognitive Function and Quality of Life

People with preexisting cognitive impairment saw greater improvement after successful treatment.

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Successful treatment of hepatitis C virus (HCV) led to improvement in cognitive function in people with and without liver cirrhosis, according to study results published in the European Journal of Neurology.

“These data indicate that HCV-associated cognitive impairment may be a reversible component of cognitive decline and may constitute an indication of treatment independently of the stage of liver disease,” wrote the researchers.

Chronic hepatitis C can lead to severe liver complications, including cirrhosis and liver cancer, but it has also been linked to other conditions, including neuropsychiatric problems that affect daily functioning and health-related quality of life (HRQoL). Learning, memory, attention, executive function and visual-spatial ability are some of the cognitive functions that may be adversely affected. But whether hep C treatment can reverse these complications is not well understood.

Rita Garcia Martinez, MD, PhD, of Hospital General Universitario Gregorio Marañon in Madrid, and colleagues set out to assess cognition, daily functioning and HRQoL in people at different stages of liver disease after achieving a functional HCV cure.

The researchers recruited 152 individuals who were treated with direct-acting antiviral therapy between April 2015 and March 2017. They performed a complete neuropsychological assessment and administered questionnaires about functioning and HRQoL before the start of HCV treatment and at 12 and 48 weeks after completing therapy.

Of these 152 participants, 135 people who achieved a virological response finished the follow-up process, including 44 who had cirrhosis. People with cirrhosis had worse cognitive function at baseline. Some 34% of those with cirrhosis and 14% of those without cirrhosis had some degree of cognitive impairment before beginning antiviral therapy.

Successful treatment led to improvement in cognitive function, the researchers reported. Among those who achieved a functional cure, cognitive impairment was seen in 23% of people with

cirrhosis and 6% of those without cirrhosis. Participants showed improvements in processing speed, attention, executive function and global cognitive functioning. People without cirrhosis also showed better visual-spatial ability and working memory, while people with cirrhosis had better motor function. While daily functioning and HRQoL improved after individuals were cured, those with cirrhosis saw less improvement than those with less advanced liver disease.

What's more, individuals with worse cognitive function before HCV treatment showed greater advances in cognition. The researchers also noted that older individuals with some baseline cognitive impairment experienced greater improvement in cognition following antiviral therapy, irrespective of liver disease stage.

Persistent loss of cognitive function was linked to cirrhosis, a higher risk for heart disease, higher anxiety and depression scores and lower education levels.

"Viral eradication decreases the prevalence of cognitive impairment and improves functioning and HRQoL," wrote the researchers. "Patients with lower brain reserve (older) and baseline cognitive impairment may benefit the most." Early identification and treatment of HCV through screening programs "may reduce the burden of cognitive disturbances beyond the prevention of liver disease progression," they added.

Click here to read the study abstract in the European Journal of Neurology.

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