More Seniors Need Liver Transplants, Often Due to NASH

Even with this increase, older individuals now have better transplant outcomes.

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The proportion of older people requiring a liver transplant has greatly increased, likely due to the concurrent rise in fatty liver disease, according to findings presented at the AASLD Liver Meeting.

“In the past, older patients were routinely denied listing for liver transplantation because doctors believed they were less likely to survive the surgery and post-transplant management,” Maria Stepanova, PhD, of the Center for Outcomes Research in Liver Diseases, said in a press release. “Age limits are largely being abandoned as exclusion criteria, but the mid- and long-term outcomes of elderly transplant candidates and recipients are still not well understood.”

Arising from the accumulation of fat in the liver, non-alcoholic fatty liver disease (NAFLD) and its more severe form, non-alcoholic steatohepatitis (NASH), are responsible for a growing proportion of advanced liver disease worldwide. As a result of inflammation, NAFLD can lead to fibrosis, cirrhosis, liver cancer and the need for a liver transplant. Fatty liver disease is linked to obesity and diabetes. With no approved drugs, its management relies on lifestyle changes, such as diet and exercise.

Stepanova, Zobair Younossi, MD, MPH, of Inova Health System, and colleagues examined trends in liver transplantation among elderly people (ages 65 and older) in the United States using data from the Scientific Registry of Transplant Recipients from 2002 to 2020. They examined outcomes while the participants were on a waiting list and after their transplant.

Over the duration of the study period, the team found that 31,209 candidates were wait-listed; of these, 61% were men, 73% were white, 66% were covered by Medicare and 33% had diabetes.

The reasons for transplantation varied: 31% had NASH, 23% had hepatitis C, 18% had alcohol-related liver disease, 5% had primary biliary cholangitis, 3% had autoimmune hepatitis, 3% had hepatitis B and 3% had primary sclerosing cholangitis. Some 30% also had hepatocellular carcinoma, the most common type of liver cancer.

The percentage of transplant candidates who were at least 65 years old rose from 9% during the years 2002 to 2005 to 23% from 2018 to 2020. During these same periods, the proportion of

people with NASH increased from 13% to 39%, while the percentage of people with hepatitis C fell from 27% to 18%. The advent of effective treatment that cures hepatitis C may help explain the latter decline.

“The proportion of elderly patients in need of liver transplantation in the U.S. is sharply increasing,” wrote the researchers, adding, “The outcomes of these patients have been improving in the past decades.”

Among the study population, 54% went on to receive a transplant, 12% died while on a waiting list and 8% were still waiting. In addition, 14% were taken off the list because of clinical deterioration, 4% improved enough that they no longer needed a transplant and 7% were removed for other reasons; 2% ended up refusing a transplant.

Older candidates had worse post-transplant mortality than younger candidates; fewer of them received a new liver and more were removed from the waiting list due to their deteriorating condition .

Independent factors that signaled a higher likelihood of older patients receiving a transplant were being male, having a college degree, having a higher MELD score (an indicator of liver disease severity) and having liver cancer. On the other hand, being Hispanic, being covered by Medicaid and having type 2 diabetes lowered the likelihood of receiving a transplant. Predictors of death following a transplant were older age, male sex, liver cancer and diabetes.

“As the U.S. population ages, this data is particularly relevant,” Younossi said. “Similarly, patients with chronic liver diseases, especially NASH, are also getting older. By studying the outcomes of liver transplantation in the elderly, we can provide evidence to support the expansion of the transplant candidate pool. In fact, we believe it is more about the physiologic age of the patient than their chronologic age.”

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