Understanding Alcohol-Associated Liver Disease

From fatty liver disease to cirrhosis to alcoholic hepatitis—here's what you need to know.

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When it comes to alcohol, drinking too much too often can take a serious toll on the body. Medical researchers have examined the effects of everything from alcohol-related brain damage to immune dysfunction. Now, many are interested in figuring out how the drug affects the human liver, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) blog reports.

As the primary organ responsible for metabolizing alcohol, the liver is especially vulnerable to alcohol-related injury, say researchers. In fact, in the United States, as many as half of all liver disease deaths involve alcohol.

According to the latest research on alcohol-associated liver disease (AALD), a broad spectrum of illnesses can be caused by drinking-related damage, including alcoholic steatosis (fatty liver disease), cirrhosis, liver cancer and a particularly severe illness known as alcoholic hepatitis (AH).

On one end of the AALD spectrum are asymptomatic, often reversible illnesses, such as fatty liver disease, which affects an estimated 90 percent of people who report heavy alcohol use. This excess fat accumulation can cause liver inflammation, known as alcoholic steatohepatitis, often the next stage of alcohol-related illness.

On the other end of the AALD spectrum are dangerous, life-threatening illnesses, such as alcoholic hepatitis, a severe and acute illness characterized by a rapid elevation in serum bilirubin levels, jaundice and liver-related complications. The mortality rate for those diagnosed with AH is high: 30 to 50 percent within three months of diagnosis. Fibrosis, an accumulation of fibrous and connective tissue around liver cells, and cirrhosis, a more severe form of fibrosis resulting in liver scarring often accompany it. Hepatocellular carcinoma, the most common form of liver cancer develops in about 10 percent of patients with alcoholic cirrhosis.

Right now, many liver researchers are particularly interested in fighting AH, for which prednisolone, a steroid with many side effects that has been the standard of care for nearly 40 years, is the sole primary treatment. The NIAAA is trying to standardize definitions and diagnostic criteria for the condition to help speed up shared advances in the field.

“This network will bring enhanced research coordination across the AH field and has the enormous potential of leading to new effective treatment options for people with alcoholic hepatitis,” said NIAAA director George F. Koob, PhD, who has been working to help consolidate research around AALD.

To learn more about alcohol and liver disease, click here.
