Scoring system can predict risk of mortality in patients with non-alcoholic fatty liver disease

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Researchers today demonstrated that a scoring system can predict a person's risk of death from non-alcoholic fatty liver disease (NAFLD), the world's most prevalent liver disease. The study results were presented today at The International Liver CongressTM 2016 in Barcelona, Spain.

It is known that those with severe NAFLD have an increased risk of death, but precisely identifying a patient's risk of mortality has previously proved challenging for clinicians. The SAF score was developed to more accurately predict the severity of NAFLD. SAF, or steatosis (accumulation of fat in the liver cells), activity, and fibrosis (thickening or scarring of connective tissue in the liver as a response to damage) are three measures of liver function and the researchers found that a higher score is associated with increased mortality.[1]

"We suspected that steatosis, activity and fibrosis were important to overall risk but we wanted to validate their impact on mortality over a long-term follow-up period through a validated and simple scoring system," said Dr Hannes Hagström, fellow of the Department of Gastroenterology and Hepatology at Karolinska University Hospital, Stockholm and lead study author. "This new analysis is vital in showing the link between severe non-alcoholic fatty liver disease and mortality, which is an important measure given that this is the most common liver disease worldwide."

The researchers used data from 139 patients with biopsy-proven NAFLD. All of the biopsies were re-classified according to the SAF scoring system, with the diseases defined as mild, moderate or severe via an index combining activity and fibrosis. Further data on overall mortality was taken from a national population register. A Cox regression model, adjusted to take into account body mass index and the presence of type 2 diabetes, was used to examine the predictive value of the SAF score. Patients were followed up for an average of 26 years (standard deviation 6.1, range 1.7 - 40.8 years).

At baseline, 69 patients had a severe form of the disease and 35 patients had mild or moderate disease. Of the 70 patients who died during follow-up, 59% came from those previously classified as having a severe form of NAFLD.

"This long-term study demonstrates the importance of having sufficient follow-up periods for patients with NAFLD," said Professor Laurent Castera, EASL Secretary General. "This is an important step forward for the medical community in being able to identify the patients who are at most risk of death from the disease."

More information: References:

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