

Liver fibrosis tied to specific heart failure, regardless of HIV or hepatitis C status

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While there is an association between liver fibrosis and heart failure, the mechanisms for this association are currently unclear but may be of particular importance for people living with human immunodeficiency virus (HIV) and/or hepatitis C, both of which are chronic infections that affect the liver and heart.

Prior research has shown that people with a certain type of liver disease that involves scarring of the liver (fibrosis) have a higher risk of heart failure. Now these same researchers have discovered that this higher risk may be specific to a certain kind of heart failure called heart failure with preserved ejection fraction (HFpEF).

A multidisciplinary team, led by a researcher from Boston University School of Medicine (BUSM) grouped U.S. Veterans from the Veterans Aging Cohort Study (VACS) who had never had heart failure into three categories representing advanced fibrosis, indeterminate fibrosis, and no advanced fibrosis. They then observed these individuals until they experienced new onset heart failure or death and then estimated the rates and risk of heart failure across the three liver fibrosis groups.

"Our findings suggest that the link between liver fibrosis and heart failure may be specific to one type of heart failure (preserved ejection) and not heart failure with reduced ejection fraction," explained corresponding author Kaku So-Armah, Ph.D., assistant professor of medicine at BUSM.

According to the researchers, implications of this work include the need for ongoing research focusing on the role of liver fibrosis in new onset heart failure, particularly HFpEF. Further implications include the need to screen for and reduce heart failure risk among people with [liver disease](#), particularly among people with conditions like HIV or hepatitis C that enhance the overall risk of heart failure.

"People with advanced liver fibrosis, including people without HIV or hepatitis C, may have increased risk for heart failure with preserved ejection fraction compared to people without evidence of advanced liver fibrosis. Preventing [liver fibrosis](#), particularly among people already at high risk for heart failure, may be an important factor in preventing or reducing risk of [heart failure](#) with preserved [ejection fraction](#); an idea to

be tested in future studies."

More information: Kaku A. So-Armah et al, FIB-4 stage of liver fibrosis is associated with incident heart failure with preserved, but not reduced, ejection fraction among people with and without HIV or hepatitis C, *Progress in Cardiovascular Diseases* (2020). [DOI: 10.1016/j.pcad.2020.02.010](https://doi.org/10.1016/j.pcad.2020.02.010)

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