CHRONIC HEPATITIS C PROGRESSION

Weight change, insulin resistance and the amount of steatosis—all weight-related factors—are associated with progression of chronic hepatitis C, according to the results of a new study. "The main implication," says James Everhart, lead researcher, "is that features other than just the virus or the body's immune response to the virus are important in progression of chronic-hepatitis-C-related liver disease."

The factors that lead to the progression of chronic hepatitis C to cirrhosis are poorly understood, and current treatments have limited efficacy. Several studies have shown that patients with chronic hepatitis C tend to have more severe liver disease if they are obese or diabetic. Everhart and colleagues therefore investigated the influence of weight-related factors on disease progression.

Clinical outcomes were measured over 3.5 years in 985 of 1,050 patients enrolled in the HALT-C trial. These patients had progressive fibrotic liver disease due to hepatitis C that had not cleared on standard treatment. The researchers found that weight gain and insulin resistance were associated with trends for worse outcomes. Substantial steatosis was associated with outcomes in patients without cirrhosis. However, in patients with cirrhosis, increased amounts of steatosis were associated with fewer outcomes. The researchers suggest that this finding may be explained by the tendency of steatosis to diminish as liver disease worsens.

"Until there are nontoxic and more effective therapies … identifying and explaining factors associated with disease progression, such as was demonstrated here, may deserve increased attention," says Everhart. For overweight or obese patients with chronic hepatitis C who have not responded to, or are unable to take, antiviral therapy, weight loss could be important for the management and prevention of disease progression.

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Original article Everhart, J. E. *et al.* Weight-related effects on disease progression on the Hepatitis C antiviral long-term treatment against cirrhosis trial. *Gastroenterology* **137**, 549–557 (2009).