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The full report is titled “Sustained Virologic Response and Clinical Outcomes in Patients with Chronic Hepatitis C and Advanced Fibrosis.” It is in the 20 November 2007 issue of *Annals of Internal Medicine* (volume 147, pages 677-684). The authors are B.J. Veldt, E.J. Heathcote, H. Wedemeyer, J. Reichen, W.P. Hofmann, S. Zeuzem, M.P. Manns, B.E. Hansen, S.W. Schalm, and H.L.A. Janssen.

Sustained Virologic Response in Hepatitis C

What is the problem and what is known about it so far?

Hepatitis is inflammation of the liver. Infection with hepatitis C virus (HCV) is 1 of the most common causes of hepatitis in the United States. New infection causes liver inflammation. In some patients, the inflammation resolves without treatment; in others, the inflammation does not resolve. It may stay active for a long time, slowly causing liver damage. The liver damage may progress to severe liver scarring (cirrhosis), liver failure, liver cancer, or death. Treatment of the infection can slow this progression. However, not all people respond to the treatment, and treatment has never been shown to prevent the complications of chronic infection.

Why did the researchers do this particular study?

To see whether response to HCV treatment is associated with fewer complications of HCV infection.

Who was studied?

479 persons with chronic HCV infection and scarring of the liver who were treated at 5 medical centers in Europe and Canada.

How was the study done?

The researchers treated the study participants for HCV and did tests after about 6 months to see who responded to the treatment and who did not. The researchers then followed the participants for up to 15 years to see who developed liver failure or cancer and to see who died. They then compared the frequency of those complications among participants who did and did not respond to treatment.

What did the researchers find?

Only about one third of the participants responded to treatment. However, those who responded to treatment seemed much less likely to develop liver failure and, to a lesser extent, seemed less likely to develop liver cancer or die.

What were the limitations of the study?

There were few complications in either participant group, so the researchers could not say for certain which of the complications treatment prevented most. Also, the researchers studied only persons whose doctors decided that they should be treated for infection. The reasons for not treating those people might be related to the likelihood that they would respond to treatment or develop complications, and the findings might have been different if they had been treated and included in the study.

What are the implications of the study?

Effective treatment of HCV infection seems to prevent the complications of chronic infection. This has never been demonstrated before, and it emphasizes how important treatment of HCV infection really is.