Recently, several hepatologists have recommended interferon (IFN) therapy for acute hepatitis C (AHC), to prevent chronic hepatitis C (CHC) and its complications.1-8 Is IFN therapy for AHC effective, appropriate and cost-effective?

IFN monotherapy in AHC resulted in sustained viral response (SVR) in 62% versus 12% in untreated patients.2-9 Meta-analysis of four randomized controlled trials showed 28% increase in SVR with IFN.4 High-dose IFN therapy resulted in 83%-100% viral clearance.6,10,11 IFN monotherapy thus reduced chronicity in about 40% of patients with AHC. Observations in some of these studies are in small number of patients and without adequate controls.9

Treatment of AHC with IFN has certain advantages: (i) therapy is recommended for a short period of 3 months;5,7,8 (ii) serious complications such as cirrhosis of liver and/or hepatocellular carcinoma (HCC) may be prevented in a few patients surviving 20-30 years; (iii) the virus is eliminated from blood early, and hence the risk of its transmission, though rare, will be reduced.

But are these advantages sufficient enough to recommend detection and treatment of all patients with AHC?

The vast majority of patients with AHC are asymptomatic or present with minimal constitutional symptoms; jaundice is present in only 20%.12 Clinical data and serological markers do not help to accurately differentiate AHC from some patients with CHC.13 Following the onset of symptoms in AHC, appearance of anti-HCV may be delayed for 3-6 months and test for HCV RNA in blood is necessary to diagnose AHC.14,15 Accurate timing of exposure is possible only when there is one exposure to blood transfusion or needle prick. Thus, repeated screening of blood for ALT, anti-HCV and HCV RNA in all patients with blood transfusions, intravenous drug abuse or in a hemodialysis unit will be needed to detect patients with AHC.

Following AHC, the incidence of CHC varies from 54% to 80%.16-19 The risk is much lower in younger than in elderly individuals, due to greater chance of spontaneous clearance of the virus in them.2,6,20,21 Spontaneous viral clearance in the first 3 months of infection occurs in up to 50% of symptomatic patients with AHC.2 Hence treatment prior to 3 months would prove to be unnecessary in a large number of patients. Whether treatment should be commenced 3 months after onset or earlier is not agreed upon by experts.

CHC results in cirrhosis in 2%-4% of young women or 20%-30% of middle-aged transfused patients, over a period of 20 years; 1%-6% of cirrhotics will develop HCC every year.18,22-25 All patients with CHC are not recommended antiviral treatment; only those with transaminase elevation and/or significant histological abnormalities on liver biopsy are recommended treatment.3 Hence treating all patients with AHC to prevent CHC and its complications is not justifiable.

After 23 years of HCV infection, the mortality related to liver diseases is higher (4%), but not significantly so, compared to controls (1.3%).17,26 Subjects with AHC over the age of 50 years have a risk of serious complications at about 70 years of age.22,27 Non hepatic causes are obviously likely to be a much greater risk to their lives. Hence the risk from CHC should not be overemphasized.

Human immunodeficiency virus (HIV) and HCV infection often co-exist; about 25% of HIV-infected patients have HCV infection.28 Whether observations of IFN therapy in AHC alone are applicable to those with co-infection with HIV or other viruses (e.g., hepatitis B) is not known.

In conclusion, we need to reconsider the recommendation to treat AHC, for several reasons: (i) serial blood testing for ALT, anti-HCV and HCV RNA will be required in a large number of subjects in order to detect asymptomatic AHC; the cost involved will be enormous; (ii) patients who will spontaneously clear the virus in the first 3 months of infection will be unnecessarily treated with an expensive drug with significant side effects; (iii) the presence of CHC by itself is not an indication for treatment; only selected patients with CHC are recommended treatment; (iv) the risk from CHC has probably been overemphasized.

References


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