

Evaluation of the Factors Influencing the Response to Interferon Therapy for Chronic Hepatitis C

Clinical Outcomes of 331 Cases Over the Past Decade

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Abstract : We examined the factors influencing the response to interferon (IFN) therapy for patients with chronic hepatitis C who were treated in our department over the past decade. **Subjects and Methods :** Between April 2000 and March 2010, a total of 451 patients with chronic hepatitis C underwent IFN therapy in our department. The factors influencing the response to interferon(IFN)therapy were analyzed in 331 cases. Furthermore, 84 cases that had undergone pegylated interferon (PEG – IFN) and ribavirin combination therapy were examined for an association between amino acid (aa) substitution in the hepatitis C virus (HCV) core region and efficacy of IFN therapy. **Results :** The average age of the 331 patients was 54.8 years old, and 62.9% had IFN therapy – resistant type HCV of serotype 1, and a high serum HCV – RNA level. The sustained virological response(SVR) of patients with HCV serotype 1 and a high serum HCV – RNA level was 18.2% in those who received IFN monotherapy, 22.9% for IFN + ribavirin combination therapy, 25.0% for PEG – IFN monotherapy, and 43.0% in the patients who received PEG – IFN + ribavirin combination therapy. Multivariate analysis identified non – serotype 1, a low serum HCV – RNA level, PEG – IFN + ribavirin combination therapy, and age(<57)as significant determinants of a SVR. Furthermore, the substitution of aa 70 in the HCV core region was an independent risk factor for a non – virological response. **Conclusions :** The efficacy of IFN therapy has improved dramatically over the past decade. Appropriate therapy for individual cases may be possible by considering the patient's HCV serotype, virus titer, age, IFN treatment method, and whether aa substitution of the core region is present.

Key words : Chronic hepatitis C, Interferon, Sustained virological response, Non–virological response