Prediction of therapy response to interferon-alpha in chronic viral hepatitis-B by liver and hepatobiliary scintigraphy

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Interferon (IFN) provides effective treatment in some patients with chronic hepatitis. The clarification of factors predictive of therapy response would be helpful in identifying patients who would benefit from treatment. In this study, we evaluated the potential utility of Tc-99m sulfur colloid liver/spleen and Tc-99m-disofenin hepatobiliary scintigraphy to predict therapy response to IFN in patients with chronic active hepatitis. The study group consisted of ten patients with chronic viral hepatitis B who were treated with 4.5 units of interferon alpha for 12 months. Prior to the start of the therapy, sulfur colloid scintigraphy was obtained by which the liver/spleen ratios were derived. Hepatobiliary scintigraphy was performed on a separate day and time-activity curves were generated from regions of interest drawn over the liver, heart and gall-bladder. The index of blood and liver clearance time was calculated. Histological grading and laboratory values were obtained for clinical correlation. Responders (n = 6) to IFN were defined as those who improved clinically with normalized transaminase levels and had HBeAg seroconversion. On SC scintigraphy, the liver/spleen ratio of non-responders was significantly lower than responders (median values: 0.69 vs. 1.16, p = 0.01) but on hepatobiliary scintigraphy no statistically significant parameters were found to predict response to interferon therapy.

Key words: interferon, liver spleen scintigraphy, hepatobiliary scintigraphy