

The changes of glucose metabolism in the brain before and after antiviral therapy in patients with chronic hepatitis C and cirrhosis

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Abstract

Nowadays, interferon therapy is one of the most important treatment of chronic hepatitis C patients and widely used all over the world. However, adverse effects of this therapy such as neuropsychiatric symptoms might make it difficult to complete. The aim of this study is to evaluate interferon therapy associated neuropsychiatric symptoms and its correlation of effects on cerebral glucose metabolism (CMRglu) in chronic hepatitis C patients.

Six patients with HCV infection including one cirrhotic patient and five chronic hepatitis undergoing interferon therapy (interferon α or interferon α -2b or Peg-interferon α -2b) were prospectively evaluated by neuropsychiatric test and cerebral [^{18}F] deoxyglucose positron emission tomography (FDG-PET) before and in the 8th week of treatment.

Compare to before and 8th week of treatment, Depression score points (SDS test) of all patients were increased. Digit symbol test (DST) of two patients were improved. DST of one patient was unchanged. DST of one patient was worsened. Block design test (BST) of one patient of were improved. BST of three patient of were worsened. CMRglu of five patients were 1-24% decreased whole of the brain region. CMRglu of one patients were increased most of all brain region.

These result suggests interferon therapy affects on CMRglu and neuropsychiatric symptoms and its abnormalities in chronic hepatitis C patients with interferon therapy.