

**The Impact of Interferon Treatment on Neurological,
Neurophysiological and neuropsychological Assessment in
Recently Discovered Patients with Hepatitis C Virus**

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THESIS

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Abstract

Hepatitis C virus (HCV) is known to induce chronic hepatitis, cirrhosis, and hepatocellular carcinoma. HCV and its treatment with interferon are associated with neurological manifestations ranging from peripheral neuropathy to cognitive impairment. Aim of the work: To find out the impact of interferon treatment of HCV on central and peripheral nervous system clinically and neurophysiologically.

Patients: This study included 30 Egyptian patients with recently discovered HCV and 30 age and sex matched control subjects. Patients received combined interferon with ribavirin with follow up 6 months later. Methods: General examination, abdominal examination and ultrasonography, Mini-Mental State Examination (MMSE), Controlled Oral Word Association Test (COWAT), Trail making test A and B (TMT-A, B), CBC, ESR, blood glucose, urine analysis, serum lipid profile, sodium and potassium, kidney and liver functions, hepatitis Markers, nerve conduction studies (NCS) and visual evoked potential (VEP). Results: There was no significant difference in baseline and follow up MMSE in patients, baseline COWAT but with significant difference in follow up COWAT, baseline and follow up TMT A, B compared to control group. NCS revealed demyelinating polyneuropathy compared to base line group. The results of VEP revealed that P100 amplitude was significantly lower in patient at base line than control group and follow up group while P100 latency was significantly longer in follow up group than control group and base line group Conclusion: HCV patients showed impairment in cognitive functions, central and peripheral neuropathy which was aggravated during interferon treatment but with .improvement of axonal central neuropathy

Keywords: hepatitis c, interferon, neurological, neurophysiological, neuropsychological

