PP-002

Psychometric test compliance of patients with cirrhosis in the diagnosis of minimal hepatic encephalopathy

Cansu Gür [1], Beyhan Hirik [1], Betül Şahan [1], Feyza Üstüner [1], Canberk Sami Başıbüyük [2], Çağlayan Keklikkıran[3], Coşkun Özer Demirtaş[3], Tarık Kani[3], Osman Cavit Özdoğan[3]

[1]*Marmara University School of Medicine, Istanbul, Turkey*
[2]*Department of Internal Medicine, Marmara University Schoolf of Medicine, Istanbul, Turkey*
[3]*Department of Gastroenterology, Marmara University School of Medicine, Istanbul, Turkey*

INTRODUCTION: Minimal hepatic encephalopathy (MHE) is an asymptomatic syndrome characterized by neuropsychiatric changes in cirrhotic patients. MHE reduces the patient's quality of life. The diagnosis of MHE is important in terms of prevention of progression to overt HE. Diagnosis cannot be determined by routine clinical and laboratory tests but neurophysiological / neuropsychological tests are required. Our aim is determine the functionality of psychometric tests (PHES) which is gold standard in the evaluation of MHE, and find compliance of patients in Turkey and to identify the factors affecting this compliance.

METHODS: In a cross-sectional study, 29 compensated cirrhosis patients were randomly selected from our hepatology policlinic. A control group of 37 people was formed by considering the sociodemographic characteristics of the patients.PHES and supporting neuropsychiatric tests were applied to them individually. PHES tests are practical tests to detect neuropsychological deficits typical in HE and it consist of 5 basic tests; Digit Symbol Test (DST), Number Combining Test-A (NCT-A), Number Combining Test-B (NCT-B), Serial Doting Test (SDT) and Line Tracing Test (LTT). These tests are carried out to examine visual perception, spatial visual orientation, visual interpretation, motor speech and accuracy, concentration and memory. The supporting tests were the short memory test measuring instant visual memory, the Stroop task which is considered as the gold standard for measuring attention, and the Benton Face Recognition Tests (BFRT) that evaluate the visual perception. Statistical analysis was performed by SPSS software Version 20.0

RESULTS: According to the results of PHES tests, the cirrhotic patients values were lower than the normal values generated in the control group by 28% (n=8) in NCT-A, 32% (n=9) in NCT-B, 17% (n=5) in SDT, 21% (n=6) in LTT and 25% (n=7) in DST. Neuropsychiatric tests revealed that the patients values were lower than normal by 46% (n=13) in Stroop task, 17% (n=5) in BFRT and 21%(n=6) in short-term memory test. By using RedEH MHE calculation system MHE was determined in 28.9% (n = 8) of 29 patients. According to the mean and standard deviation values of the control group, MHE was determined in 35.7% (n = 10) of the patients. It was observed that the data obtained in the PHES and the neuropsychiatric tests were supporting each other (p = 0.001). Another finding in our study is test results have a direct relationship with educational level and indirect relationship with increased age but not with gender.

CONCLUSION: According to our study, factors such as patient education and age should be taken into consideration to evaluate the compliance of patients with the these tests. Moreover, it is necessary to validate these tests in Turkey. According to our non-validated results, approximately one-third of our patients had positive results in PHES tests, and these patients may have MHE

Keywords: Minimal hepatic encephalopathy, PHES, cirrhosis, neuropsychiatric tests

Sociodemographic Characteristics of Study Population	
Women (Study/Control); Man (Study/Control)	14/19;15/18
Age ± SD	54,18 ± 14,993
Educational Status	6(literate)/33(elementary school)/11 (middle school)/11(high school)/4(university)

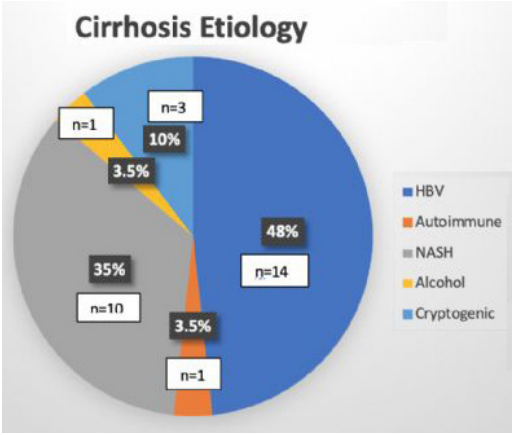

Figure 1. Cirrhosis etiology of patients in study population