

ELECTROENCEPHALOGRAPHY IN DETECTION OF MINIMAL HEPATIC ENCEPHALOPATHY IN CIRRHOTIC PATIENT

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Background: Minimal hepatic encephalopathy (MHE) is a common complication of cirrhosis of liver which significantly impairs the patient's quality of life and often progress to overt hepatic encephalopathy. Psychometric Hepatic Encephalopathy Score (PHES) test is considered as the gold standard for diagnosing minimal hepatic encephalopathy (MHE), but its value is limited in cases where patients cannot read or write. In such cases, electroencephalography (EEG) could be alternative diagnostic tool. The aim of this study was to evaluate the diagnostic value of electro-encephalography (EEG) in detection of minimal hepatic encephalopathy, so that this test could be employed for individuals who are unable to read or write. **Methods:** This cross-sectional study was conducted in the department of Gastroenterology, Dhaka Medical College Hosptial, from April 2022 to March 2023. Ninety patients with cirrhosis without having overt hepatic encephalopathy were assessed by both PHES and EEG tests. Then diagnostic value of electroencephalography (EEG) was assessed. **Results:** In this study, the diagnostic performance of Electroencephalography (EEG) was evaluated, revealing a sensitivity of 70.7%, specificity of 89.8% and accuracy of 81.11%. Positive predictive value & negative predictive value were 85.29% & 78.57% respectively. **Conclusion:** Electroencephalography (EEG) has demonstrated satisfactory results in the detection of minimal hepatic encephalopathy. Electro-encephalography (EEG) can be employed as a diagnostic tool to detect minimal hepatic encephalopathy in cirrhotic patients when the Psychometric Hepatic Encephalopathy Score (PHES) test could not be applied, such as in cases where patients are unable to read or write.

Keywords: Electroencephalography, Minimal Hepatic Encephalopathy , Cirrhotic Patient

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