

The initial mean of the FCP was  $37.03 \pm 1.8$  Hz and the final was  $39.8 \pm 2.1$  Hz. The difference was significant for the student's t-test for related samples  $p < 0.0001$ . The P300 potential had an initial amplitude of  $2.42 \pm 2.79$  and a final one of  $2.21 \pm 2.19$ , not being significant, in contrast to the initial latency of  $410.06 \pm 63$  milliseconds (ms) and the final one of  $404.88 \pm 63.6$  ms, being significant after treatment, with LOLA  $p = 0.015$ .

**Conclusions:** Short-term (3 days) changes in MHE due to LOLA treatment were seen in PHES test scores, FCP test scores, and P300 evoked potentials. The P300 potentials reflect the state of the EEG when performing cognitive tasks of attention. The improvement in this indicator is already known at 30 days of treatment and with the present study, it was determined that immediately at the start of treatment with LOLA there is an improvement in their cognitive status.

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**Declaration of interest:** The authors declare no potential conflicts of interest.

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### The Stroop test validation in the detection of minimal hepatic encephalopathy in Mexican patients with cirrhosis, preliminary results

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**Introduction and Objectives:** Minimal hepatic encephalopathy (MHE) is an important cause of morbi-mortality in patients with cirrhosis; its timely identification has an impact on prognosis; the Stroop Test is a diagnostic tool that can be useful and practical in these patients. Validating this test and calculating the cut-off point for the diagnosis of MHE in our population is important. This study aimed to validate the Stroop Test application and estimate the cut-off point for the diagnosis of MHE in our population.

**Materials and Methods:** Observational, cross-sectional and prospective study to validate and calculate the cut-off point of the Stroop Test; patients with cirrhosis with and without manifest hepatic encephalopathy will be included, who will undergo the Stroop Test, psychometric score of hepatic encephalopathy (PHES) and the critical flicker frequency test (CFF): ROC curves will be calculated to measure sensitivity, specificity and its cut-off point, healthy subjects will also be included for comparison. The trial was approved by the research ethics committee, and informed consent was obtained.

**Results:** One hundred subjects participated: 50 controls, 33 females (66%) age  $= 43.2 \pm 12.1$  years; and 50 patients with hepatic cirrhosis: 27 females (54%) age  $53.2 \pm 8.2$  years, of which 54%, 42% and 2% were in Child-Pugh A, B and C, respectively. AUROC was calculated for patients with cirrhosis with and without MHE, AUROC = 0.751 (CI = 0.656–0.846); cut-off point = 183.5 sensitivity (SE) = 60% specificity (SP) = 74% (Figure 1).

**Conclusions:** For our study sample, we found that the Stroop Test is a good diagnostic tool, taking into account a cut-off point of 183.5 sec. as opposed to 274.9 sec. that the apple application gives us, which is validated in a different population (grade and quality of education).

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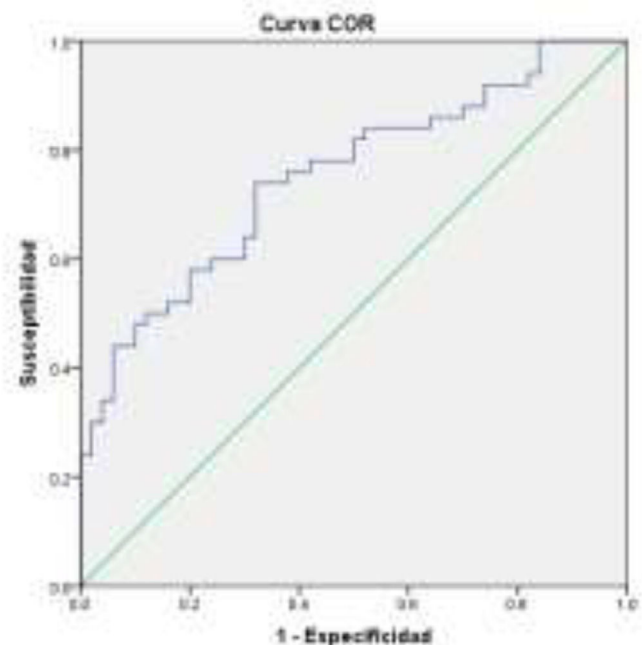


Figure.1

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### Changes in early visual perception in patients with minimal hepatic encephalopathy

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**Introduction and Objective:** Minimal Hepatic Encephalopathy (MHE) is characterized by very subtle cognitive changes that are diagnosed with the Psychometric hepatic encephalopathy score (PHES) and critical flickering frequency (CFF). Patients with MHE are slower in attention tests evaluated with visual cognitive evocative potentials, which are late indicators. However, it is unknown whether there is also slowness in automatic responses of early visual perception, such as those of stationary visual potential P100. This study aimed to detect early visible changes in patients with minimal hepatic encephalopathy.

**Materials and Methods:** Cirrhotic patients who went to the Liver Clinic of the Gastroenterology Service of the General Hospital of Mexico "Eduardo Liceaga" were included. The PHES, CFF test was applied and the electroencephalogram (EEG) was recorded while repeated visual stimuli were presented to obtain the stationary visual potential P100. The trial was approved by the research ethics committee, and informed consent was obtained.