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ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 7201
Title: NON INVASIVE BLOOD FLOW MEASUREMENT IN CEREBELLUM DETECTS MINIMAL HEPATIC ENCEPHALOPATHY EARLIER THAN PSYCHOMETRIC TESTS
Reviewer code: 02526276
Science editor: Zhai, Huan-Huan
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[ ] Accept
[Y] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[ ] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[ ] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[ ] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[Y] Major revision
		[ ] No records	

COMMENTS TO AUTHORS

In this cross-sectional study, Felipo and colleagues report a moderate correlation between non-invasive cerebral blood flow, in the cerebellum and minimal hepatic encephalopathy as well as other psychometric tests in patients with cirrhosis. Overall, this is a rigorous and well-conducted study, and the authors must be commended for all the hard work. I have some suggestions that will help improve the manuscript: - Causality can not be inferred from a cross-sectional study, but rather associations/correlations can be made. Hence, I would recommend modifying the manuscript throughout to remove any inference on causality - for example, between NO/cGMP levels and ASL; between cerebellar blood flow causing MHE etc. - Since the current gold standard for defining MHE is PHES, I'm unsure how it can be inferred that cerebellar blood flow is detecting MHE earlier. Moreover, the correlations between cerebellar blood flow and all measures of cognitive function was moderate at best (Correlation coefficient, between 0.3-0.4). - Is there a cut-off for abnormal blood flow? In the absence of such a cut-off, I don't think it can be used for "detection of MHE". It may be useful to create an AUROC curve how different psychometric tests and cerebellar blood flow perform in diagnosis of MHE. - Was statistical analysis corrected for multiple comparisons, and do the p-values presented represent those corrected values? - Please simplify the abstract, and results should represent correlation coefficient between BF and global scores of PHES. - The manuscript would benefit from simplification - the introduction can be shortened, too much data is presented and may be better condensed.