PEER-REVIEW REPORT

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[Y] Grade A: Priority publishing	Google Search:	[ ] Accept
[ ] Grade B: Very good	[ ] Grade B: Minor language	[ ] The same title	[ ] High priority for
[Y] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[ ] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[Y] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

The authors described a very interesting and potential promising U/S technique with the advantage of virtual enhancement technique, SMI, in the evaluation of focal liver lesions and compared this technique to existing previous CE-CT and CE-MRI> There are some major issues: 1. The technique is very interesting, however the authors proposed 7 subtypes of SMI examination, which seems a little complicated for general use. I think that this technique is in his early phase before adapted to general use. The easier and clinically significant would be to differentiate between benign and malignant disease, however such sub differentiation has not been proposed. 2. Another confusing issue is that type II (strip rim type) were found in 8 benign HEs, and in 4 malignant liver metastases from breast cancer. 3. Also one benign adenoma had the same features (type IV, diffuse honeycomb type) as 3 HCCs. 4. This study to be more complete should be accompanied by specificity, sensitivity, negative and positive predictive value

(NPV and PPV) and to be compared to other existing techniques. Also should be simplified for clinical use.

PEER-REVIEW REPORT

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[ ] Grade B: Very good	[Y] Grade B: Minor language	[ ] The same title	[ ] High priority for
[Y] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[ ] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[Y] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Comments   The authors explored the ability of SMI for differential diagnosis of 31 focal liver lesions (most of which are hemangiomas, n=17) and compared the SMI data to Color Doppler Ultrasound and enhanced imaging. They concluded that SMI had obvious advantages in vascular visibility for the small FLLs compared with CDFI; the SMI characteristic of different FLLs were significant different. This study evaluates a novel new imaging method in diagnosis of FLL. However, it has several major weaknesses of importance. Abstract: 1. For the abbreviation of 'SMI', authors use 'Super microvascular imaging' in the title, however use 'Super-micro vascular imaging' in the abstract. Please keep consistence throughout the text. 2. Authors described various kinds of 'SMI subgroups' in their results. However, they did not mention the comparison between CDFI and SMI, so they had no results to support their conclusion as 'SMI had obvious advantages in vascular visibility for the small FLLs compared with

CDFI'. 3. This study only included very small size, especially for FNH, lymphoma and adenoma. So it will be inappropriate for them to concluded as 'the SMI characteristic of different FLLs were significant different'. Introduction: 1. Authors mentioned 'SMI has the obvious advantage of detecting more slow blood flow and reveal micro-vessels'. Why and How? Any literature to support this theory? Please describe the gold standard as already mentioned. 2. Nowadays, CEUS has been gradually recognized as a comparable imaging technique in diagnosis of FLLs, with great accuracy and convenience. Why do we still need SMI, which might not be as sensitive as CEUS in detecting small vascular perfusion? Authors should clarify this in their introduction. Methods: 1. Please include gold standard(s) for all examined criteria. 2. How many adenoma, hemangioma and FNH have been biopsied (or surgery performed) and why not the others?. 3. What is authors' detailed definition of 'SMI characteristics of the FLLs'? Any previous research or literature to support this subtypes classification? 4. '9 lesions were pathologically diagnosed', by operation or by biopsy? Authors should detailed clarify it. 5. Why did authors divide the 31 FLLs into small or large FLLs groups by 3.0cm? 6. Authors only compared the vascular visibility between CDFI and SMI? why not between SMI and CEUS? 7. What is 'within and between group comparisons' refer to in 'statistics' part? Please describe more precisely in the groups and statistical methods they used. 8. Since the SMI subtype is a relatively subjective observation, the imaging data were analyzed by two experienced radiologists, any inter- or intra-observer biases? 9. 'The difference of size and year were evaluated by one-way ANOVA test'. Why to compare the 'year'? Any relation to the SMI subtypes? 10. Authors mentioned 'CDFI mode missed the vascular of 69.2% FLLs in small group and 11.8% lesions in > 3.0cm group'. The rates seem to be high. For CDFI examination, what were the parameters settings? Results: 1. 'Satisfactory images' were got for all 31 FLLs including CDFI and SMI. However, CDFI mode could not detect blood flow signals in several cases. These seems to be contradictory. 2. Only small cases were included in each FLLs group, some even with only 1 or 2 cases. How could authors get the results as 'the distribution of SMI types between FLLs were significant different (P < 0.05)'? Discussion 1. Authors discussed CDFI had many limitations in depicting tumor vessels. Why did they still compare 'the ability of CDFI mode and SMI mode to detect the vascular of 31 FLLs'? Why not compare with CEUS or MRI? 2. 'SMI clearly demonstrated the typical "spoke-wheel" vascular type of FNH'. CDFI and CEUS also could demonstrate typical "spoke-wheel" vascular type of FNH. SMI seems to have no advantage. 3. What are the 'typical SMI types' for FLLs? Especially for HCC or metastasis lesions? Please be more clearly in the description. 4. This study only included 1-2 cases of FNH, lymphoma and adenoma. Also SMI type for lymphoma and adenoma are not typical. How could SMI 'provide some helpful information' for the diagnosis of those FLLs? Tables 1. All

abbreviations in the table require annotations. 2. Please be specific in the table what do 'SMI type I - VII' mention to? Figures 1. Figure 4, I did not find anything like 'honeycombs pattern' in the figures. 2. Figure 8, How to differentiate between 'Type II, strip rim type' and 'Type VII, spoke-wheel type'?

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology
Manuscript NO: 35863
Title: Application of Super microvascular imaging in Focal Liver Lesions
Reviewer's code: 01805500
Reviewer's country: Italy
Science editor: Li-Juan Wei
Date sent for review: 2017-08-23
Date reviewed: 2017-08-23
Review time: 6 Hours

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[ ] Grade B: Very good	[Y] Grade B: Minor language	[ ] The same title	[ ] High priority for
[Y] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[ ] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[Y] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[ ] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Authors should report the intra observer and interreader agreement to better evaluate the reliability of this new method to detect small lesions.