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ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 6595
Title: Serum and urine metabolomic fingerprinting in inflammatory bowel diseases - 1H NMR-based study
Reviewer code: 00044334
Science editor: Ma, Ya-Juan
Date sent for review: 2013-10-25 19:23
Date reviewed: 2013-10-28 14:23

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[ ] Grade A: Priority Publishing	Google Search:	[ ] Accept
[ ] Grade B (Very good)	[Y] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[ ] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[Y] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[ ] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[Y] Major revision
		[ ] No records	

COMMENTS TO AUTHORS
Major comments 1. I wonder if the metabolite markers elevated in IBD samples are truly specific for IBD but not in nonspecific intestinal inflammation such as diverticulitis or infections colitis. To this, they should compare these data to those from nonspecific intestinal inflammatory diseases. Moreover, they did not find any differences between UC and CD, which also suggest my concern. 2. The changes in metabolite markers between IBD and controls need to be reasonably explained based on their potential pathogenetic mechanisms. 3. Did the authors perform a validation study using independent another cohort of IBD samples? 4. How did the authors eliminate medication signals? What about immunomodulators or biologics? 5. Their current findings do not support the conclusion that 1H NMR-based metabolic findgerprinting of human serum and urine combined with … could be a very useful tool in IBD diagnostics.

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ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[Y] Accept
[ ] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[Y] 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	[ ] Major revision
		[ ] No records	

COMMENTS TO AUTHORS
no comments

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ESPS Peer-review Report
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[Y] Grade A: Priority Publishing	Google Search:	[ ] Accept
[ ] Grade B (Very good)	[ ] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[Y] 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

The manuscript entitled "Serum and Urine metabolomic fingerprinting..." by Dawiskiba and co-workers reports a 1H NMR metabolomics study aiaming at monitoring inflammatory bowel diseases. While the study is correctly performed from the technical point of view, I rather disagree with the main claims of this manuscript. Actually, most findings were already demonstrated in previous studies. For example, Schicho et al (ref 24) already showed the interest of 1H NMR metabolomics to characterize IBD, and they already tried to find biomarkers characteristic of such disease. In fact, the only new finding of the present manuscript is the differentiation between IBD patients in active phase or in remission. This is interesting and relevant for publication, but this main message is hidden a number of claims which are not new or erroneous. For example: -the main claim of the manuscript ("core tip", p.4, and see also p. 17) is that this study demonstrates the usefulness of 1H NMR metabolomics as a diagnostic tool for IBD. This is not true, especially because the manuscript shows that no difference is observed between CD and UC patients...which adds nothing to previous studies. Moreover, the potential usefulness of the method was already highlighted by Schicho et al, so it should not form the main claim of the present mansucript -the main conclusion (p.4 and in the conclusion) should therefore be more modest, and centered on the ability of 1H NMR to differentiate between patients in active or remission phase. Moreover, this is only possible with urine (not with serum) -the results clearly claim (p. 3) that "the most significant differences in metabolomic profiles were found between the group of patients with active IBD and healthy control subjects"....OK, but this was already demonstrated by Shicho et al! Therefore, I think that the manuscript needs major revision before publishing. In particular, the authors should center

the manuscript on the main message (ability to distinguish between active/remission phases) and be careful to give full credit to previous authors when their main claims correspond to results that were previously published. Another main worry is that no attempt was made to interpret (from the biological point of view) the results observed between sample groups. I know this is sometimes difficult, but the authors should try to give some biological interpretation to their metabolomic results. Finally, a number of minor point should also be corrected: -the NMR parameters are given in a paragraph called "serum and urine sample preparation"...the title does not seem appropriate -NMR parameters: why using a 20 ppm spectral width, as the peaks are spread over 9 ppm only? -p 8 and 9: when the acquisition time is given, the unit should be added (seconds) -how was the choice of the pulse sequence made? (cpmgpr1d vs noesypr1d or zgpr?) -what were the parameters of the cpmg pulse sequence? (number of echoes, duration of the cpmg train) -page 9: "Serum samples are much more stable" instead of "stabile" -no information is given about the bucketing procedures: how was it performed? with identical or variable bucket size? -in Figure 1, it seems that different vertical scales were employed for different parts of the specta (noise level different from right to left). this should be indicated in the legend. Generally speaking, the table and figure legends should be more complete, so that the reader can understand what the figure is about without referring to the text.