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PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology
Manuscript NO: 34400
Title: Changes in expression of inhibitory substances in the intramural neurons of the stomach following streptozotocin- induced diabetes in the pig.
Reviewer's code: 00055107
Reviewer's country: Spain
Science editor: Ya-Juan Ma
Date sent for review: 2017-05-10
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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[Y] Grade B: Very good	[Y] Grade B: Minor language polishing	[ ] The same title	[ ] High priority for publication
[ ] Grade C: Good	[ ] Grade C: A great deal of language polishing	[ ] Duplicate publication	[ ] Rejection
[ ] Grade D: Fair	[ ] Grade D: Rejected	[ ] Plagiarism	[ ] Minor revision
[ ] Grade E: Poor		[Y] No	[Y] Major revision
		BPG Search:	
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

This work studies the effects of intravenous injection of streptozotocin in pigs on the expression of neuronal nitric oxide synthase, vasoactive intestinal peptide and galanin in the enteric nervous system of the stomach. Authors found that doses of streptozotocin causing hyperglycemia increased the number of neurons expressing nNOS, VIP and galanin. This is a valuable work to increase knowledge of the effect of hyperglycemia on the gastric enteric nervous system. This is a well written paper however I consider that authors should clarify several points. - Abstract: The text of the abstract is too long, specifically the results paragraph. A lot of numerical data are included and even some of them are repeated (22.28+-1.19%, 15.91+-0.58%, …). I suggest changing data (mean+-SEM) from streptozotocin-treated animals by the percentage of increase (or decrease) over the mean of the control animals. - Introduction: In the second paragraph I suggest changing "In this physiological condition" by "In physiological conditions", as well as the term "resorption" by "absorption". Remove the comma: "in

the dog, ileum galanin …" - Material and methods: Please, specify how is administered the 250 ml of a 50% glucose solution. Subcutaneous? In the last sentence of this section: "(aP <0.05)". The "a" before P should be removed. Why other significations different from P <0.05 are not checked (P <0.01 or P <0.001)? - Results: Data of plasma glucose levels included in the text and in Table 1 are the same than those previously published by the same group in Table 1 from the paper Bulc et al. J. Mol. Neurosci. (2015) 57:376-385. However animals from both studies are different because only females were used in the present work while in Bulc et al (2015) both male and female were used. How this is possible? Are these data taken from other database than the correct one? As occur in the abstract, a lot of numerical data (mean+-SEM) are given in the text of immunofluorescence section of the Results. All of them are included in Table 2. As proposed for abstract I suggest changing these data by the percentage of increase (or decrease) over the mean of the control animals. - Discussion: Submucosal ganglia (SG) are only studied in the corpus and not in the antrum. Thus, the sentence "Contrary to these results, in the antrum in both MG and SG, changes in the synthesis of nNOS have not been noted" should be changed by "Contrary to these results, in the MG of the antrum and in the SG of the corpus, changes in the synthesis of nNOS have not been noted". Opposite results in streptozotocin-diabetic rats have been showed in the discussion: either decrease or increase in the nNOS expression in the antrum (references 29, 30 and 32). However no explanation is given on this difference. Are the doses of streptozotocin different? Are the protocols different? … This sentence should be rewritten: "Only in obese mice with coexisting diabetes has a decrease of galanin in the colon been noted." Changes in the inhibitory myenteric neurons of the gastric corpus, antrum and pylorus as seen in the present work have to evoke changes in gastric motility. Authors should correlate these results with changes in the antrum contractions, in pyloric sphincter relaxations or in gastric emptying previously observed by other authors in diabetic animal models. This study uses the pig as a model for human diabetic complications, thus authors could discuss their results in the inhibitory neurons with abnormalities in gastric emptying observed in diabetic patients. - Table 1: I suggest changing the head of the table "Serum glucose levels after induction of diabetes and glucose concentration after streptozotocin administration (up 1 to 6 weeks)" by: "Serum glucose levels in controls and after induction of diabetes by streptozotocin administration (up 1 to 6 weeks)" Why the statistical significance P values among control and experimental groups are not given in this table? - Abbreviations: Change "ENS enteric nerves system" by "ENS enteric nervous system"