

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

ESPS manuscript NO: 10998

Title: Renal dopaminergic system: Pathophysiological implications and clinical perspectives

Reviewer's code: 02946706

Reviewer's country: United States

Science editor: Ling-Ling Wen

Date sent for review: 2014-04-30 11:47

Date reviewed: 2014-07-07 03:04

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	PubMed Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

General comments: 1. Manuscript is poorly written and unclear in its current form. The sections and headings appear forced without segues between them. There should be an overall message and more emphasis on possible clinical implications of the renal dopaminergic system. The introduction does a poor job introducing the readership to the topic. 2. The two figures included in the manuscript are both well designed and helpful, but I would like to see more tables and figures in such a long review paper. Specific comments: Abstract: as a 'therapeutic strategy' rather than 'therapeutic strategic'. The aim of this review is to update and comment _on_ the most recent. Usually 'consensus of' and not 'consensus about'. Core tip: perhaps remove 'levels' and rather state maintain the normal balance of sodium and water, blood pressure and renal redox steady state. Last sentence is unnecessary clunky - 'open the possibility to consider it as a potential'. Consider rewriting. Introduction: I do not like the opening sentence. I would go into less details in the introduction paragraph and rather focus on the clinical importance of the renal dopaminergic system. The authors should also address a rationale for the review in the introduction paragraphs. Moreover, there needs to be a better segue between the



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introduction and subsequent sections. Intrarenal dopamine against oxidative stress and inflammation: The heading is not very clear. Nice figure. Rol of renal dopaminergic system in the pathophysiology of hypertension: Typographic error in heading - should be 'role' not 'rol'. Again - very nice figure. Renal dopamine, hyperinsulinemia and pathophysiology of diabetic nephropathy: Adults with type 1 and 2 diabetes demonstrate insulin resistance, and the reduced insulin sensitivity is associated with diabetic nephropathy (Bjornstad et al. Diabetes Care 2013). It is plausible that the regulatory mechanisms of the renal dopaminergic system are impaired in diabetic nephropathy due to insulin resistance? I would consider making the second paragraph the first paragraph of this section. Dopamine as nephroprotective agent? Experimental and clinical evidences in renal disfunction: Another typo - should be dysfunction and not disfunction. Please provide references to the first sentence / statement. I would also specify whether this is in pediatric or adult populations, as dopamine is used less frequently in pediatrics. Renal dopamine in the pathogenesis of edema formation: Please provide segues between the different sections. In its current form the manuscript is difficult to read. Future perspectives: I would provide some speculations on plausible triggers leading to defects in the renal dopaminergic system. This would be useful for the readership. Conclusions: The last sentence is poorly written.

ESPS PEER-REVIEW REPORT

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Title: Renal dopaminergic system: Pathophysiological implications and clinical perspectives

Reviewer's code: 00502781

Reviewer's country: Finland

Science editor: Ling-Ling Wen

Date sent for review: 2014-04-30 11:47

Date reviewed: 2014-07-14 20:36

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	PubMed Search:	<input type="checkbox"/> Accept
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<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Major revision
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Choi et al. outline the current data on the impact of renal dopaminergic system on pathophysiology of hypertension, kidney damage, diabetic nephropathy, and edema formation. In addition, the use of dopamine as a nephroprotective agent is discussed. Although generally well written, there are a number of issues that the authors should consider to improve the overall readability of the review. Major comments - The authors should considerably shorten the text under the headings "Role of renal dopaminergic system in the pathophysiology of hypertension", "Renal dopamine, hyperinsulinemia and pathophysiology of diabetic nephropathy", "Dopamine as nephroprotective agent? Experimental and clinical evidences in renal disfunction", and "Renal dopamine in the pathogenesis of edema formation". A large part of data might be provided in tables. - The authors should improve the presentation and the readability of the text under the heading "Future perspectives". In the conclusion, the authors could specify the "new strategies to improve the clinical management of these pathologies". - The authors should address the role of lipid mediators (prostanoids, leukotrienes, epoxyeicosatrienoic acids, and hydroxy- and dihydroxyeicosatrienoic



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acids) in the mediation of dopamine's effects in the kidney. The interactions between dopamine 3 receptor and endothelin B receptor in the kidney could be mentioned. - The authors could mention general principles of renal dopamine receptor signal transduction and regulation (for example, adenylate cyclase/cAMP/protein kinase A; mitogen activated protein kinases; ion channels; protein kinase C; and phospholipases). Minor comments - The authors should explain all abbreviations. - Spelling in the text: p.11 Chun G, and p.18 Marik PE (G and PE are unnecessary); p.13: ciclooxigenase; p. 17: naranja. - The authors should check the spelling in the references 19, 22, and 94.

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Name of journal: World Journal of Nephrology

ESPS manuscript NO: 10998

Title: Renal dopaminergic system: Pathophysiological implications and clinical perspectives

Reviewer's code: 02772976

Reviewer's country: United States

Science editor: Ling-Ling Wen

Date sent for review: 2014-04-30 11:47

Date reviewed: 2014-06-30 11:24

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	PubMed Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
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COMMENTS TO AUTHORS

This is an excellent review by Choi et al that provides a comprehensive review of the dopaminergic system and its clinical implications. I only have few minor comments for the authors. 1) Abstract lines 9-11. Please revise this sentence as it is confusing. Does the author means it is a potential therapeutic target? 2) Abstract lines 11-16. Please revise this sentence. It is too long and confusing for general audience 3) There are few grammatical errors such as please remove "the" at the start of the introduction. Please check the manuscript for similar errors. 4) Influence of dopamine on the glomerular podocytes has also been studied but authors have not mentioned this in the review. There should be some mention about this in the review.