Author’s response to reviews

Title: Mechanism of Worsening Diabetic Retinopathy with Rapid Lowering of Blood Glucose: The Synergistic Hypothesis

Authors:

Ahmadou Jingi (jingiahadoumusa@yahoo.co.uk)

Aurel Tankeu (aurelnet2014@yahoo.com)

Narcisse Ateba (nateba2@yahoo.fr)

Jean Jacques Noubiap (noubiapjj@yahoo.fr)

Version: 1 Date: 31 May 2017

Author’s response to reviews:

TO THE EDITOR

BMC endocrine disorders

Manuscript BEND-D-17-00094

Dear Editor,

We thank all the reviewers for their careful reading of our manuscript and for their helpful comments and suggestions. We have made changes accordingly and we believe that the result is a greatly improved paper. Our point-by-point replies to the reviewers and editor are below. We are most grateful for the opportunity to publish in BMC endocrine disorders and thank you for your consideration.

Sincerely,

The authors

Reviewer: 1

The manuscript entitled "Mechanism of Worsening Diabetic Retinopathy with Rapid Lowering of Blood Glucose: The Synergistic Hypothesis" makes a great debate, confronting the Osmotic
Force Theory with solid arguments. The authors show the limits of the Osmotic Force Theory and strongly defend the Synergistic Hypothesis. To defend the Synergic Hypothesis, they support their discourse with data from basic research and epidemiological studies.

The English written should be well reviewed. There are some points that could lead to a miscommunication.

Authors: Thank you dear reviewer, the manuscript have undergone whole language editing according to your suggestion.

Reviewer 2: This paper discusses the synergistic hypothesis to explain the occurrence and worsening of diabetic retinopathy (DR) that may occur due to insulin treatment in patients with diabetes mellitus. Insulin treatment, in spite of decreasing blood glucose, may increase DR, with paradoxical effect in some diabetic patients. The exact mechanisms of this insulin effect are still unclear. The authors support the hypothesis that high doses of exogenous insulin may act by increasing the expression of vascular endothelial growth factor (VEGF) in retinal microvascular endothelial cells via the activation of reactive oxygen species, inducing neovascularization. The subject under debate is very interesting and the authors have shown good argumentation on the subject. The introduction was presented in a clear manner with objectives and a summary of the existing literature with many current references. The body of the text was presented in subsections with relevant discussions on the topic. The authors conclude that the hypothesis presented has therapeutic potential and may benefit patients with type 1 and type 2 diabetes. However, minor changes are important.

Pag 2, Line 7 - remove underline

Pag 2, Line 19 - put abbreviations for type 1 and type 2 diabetes

Pag 5, Line 18 - change …lowering of blood pressure by lowering of blood glucose

Pag 5, Line 57 - put rats in lowercase

Pag 7, Line 26 - remove to before with

Authors: Thank you for your comments and suggestions. The manuscript have been revised accordingly.