

ANSWERING REVIEWERS



January 12th, 2015

Dear Editor,

Please find enclosed the edited manuscript in Word format
(file name: 12607-edited Nentwich EndNote 2015 01 02 FINAL ohne EndNote ohne Images.doc).

Title: Diabetic Retinopathy - Ocular complications of diabetes mellitus

Author: Martin M Nentwich, Michael W Ulbig

Name of Journal: *World Journal of Diabetes*

ESPS Manuscript NO: 12607

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) Response to comments by Reviewer #1:

The authors mentioned the classic mechanism and treatment on DR. However, new pathways may involve in the pathogenesis of DR, including, inflammation, nerve growth factor, autophagy, epigenetics, etc. It is important to add this information in the review.

Answer:

We thank the reviewer for this comment and have included information about new pathways in the pathogenesis of DR (such as inflammation, nerve growth factor, autophagy, epigenetics) in the revised version of the manuscript.

More recently new pathways which may be involved in the pathogenesis of diabetic retinopathy have been identified, such as inflammation, nerve growth factor autophagy and epigenetics. A detailed discussion of all these pathways would go beyond the scope of this mini-review about clinical aspects of diabetic retinopathy, however some aspects should be addressed.

Biochemical alterations such as oxidative stress, activation of protein kinase C and formation of advanced glycation end products have been detected as a response of the retina to hyperglycemia^[12]. Also kinin B1 and B2 are thought to increase vascular permeability, infiltration of leukocytes and inflammation. Especially kinin B1, which is almost non-existent in normal tissue, is upregulated in the retina of diabetic patients. These findings may be important for developing new therapeutic strategies aiming at antagonizing kinin receptors or at inhibiting kallikreins^[13].

Recent investigations showed that the whole retinal neurovascular system is impaired by diabetes mellitus resulting in loss of neurovascular coupling, neurodegeneration and neuroinflammation, which can be detected even before the advent of vascular damage^[14]. Clinically, reduced dark adaption, impaired colour and/or contrast vision and visual field defects are found during functional examinations of diabetic patients^[15].

(2) Response to comments by Reviewer #1:

Very Good article. Thanks

Answer:

We thank the reviewer for this evaluation of the manuscript!

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Diabetes*.

Sincerely yours,

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