Author's response to reviews

Title: The ChromaTest, a Digital Color Contrast Sensitivity Analyzer, for Diabetic Maculopathy

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Author's response to reviews: see over
Dear Editor,

Thank you for the valuable comments from all the reviewers. I have altered the manuscript accordingly to clarify the details suggested by the reviewers. I have listed the reviewers revision requests and have answered them to the best of my ability below. I look forward to your further decision regarding necessary revisions and/or the decision for publishing our manuscript.

Sincerely yours,

Roger Wong

Reply to Reviewers

Tony Casswell: The authors thank Mr Casswell for his input.

Deborah Broadbent:

Major revisions: As the manuscript states, of the 150 eyes all with no previous laser treatment, 115 had NPDR with no CSMO and 35 had NPDR and CSMO.

Minor revisions: I have also corrected the minor essential revisions as suggested by Dr Broadbent. Thank you for your input.

Richard Holubkov:

Major revisions: 1. Wilcoxon rank sum test has been recalculated using http://www.fon.hum.uva.nl/Service/Statistics/Wilcoxon_Test.html. p values have been changed accordingly.

2. Yes, in this instance the chi-squared test shows that the proportions of test positive vs test negative are different between the true positives and true negatives. I have included the confidence intervals in the table.

3. No, p values are derived by chi-squared test as in table 1. P values were not derived to show that it improved. Improvement was shown by the increase in sensitivity.

Minor revisions: 1. Sample size of control is now stated in paragraph 2 of methods.

2. Sample size added to figure legends.

The authors thank Dr. Holubkov for his input.

Keith Goatman:
Major revisions: 1. The control data is not one which I studied. Therefore, I do not have permission to publish this data from the patients nor the original investigators. The figure was provided by one of the authors and deemed acceptable to publish. This is why it is not included in the manuscript.

2. Wilcoxon rank test has been recalculated using http://www.fon.hum.uva.nl/Service/Statistics/Wilcoxon_Test.html as suggested. Thank you for your advice.

3. As the reviewer suggests, the data set is used for both training and testing. This is a limitation of this study and the manuscript states the limits of this study. Further investigation and larger data sets are required to make the threshold levels robust. As this is a pilot study, the weakness of the performance test could not be prevented. Once again, the control data is not my data and therefore have limitations of use. At the present level of this study, a piecewise threshold is the only method we could provide.

Minor revision/Discretionary revision: All suggested revisions have been made.

The authors thank Mr. Goatman for his input.