Reviewer’s report

Title: Full Accuracy of Machine Learning for Differentiation between Optic Neuropathies and Pseudopapilledema

Version: 1 Date: 22 Apr 2019

Reviewer: ParthaSarathi Mangipudi

Reviewer's report:

The Paper titled, 'Full Accuracy of Machine Learning for Differentiation between Optic Neuropathies and Pseudopapilledema' deals with deep learning algorithms to distinguish PPE from other optic neuropathies.

Although the Paper is written with clarity and is well expressed, there are few concerns and suggestions which need to be addressed for the overall improvement of the paper.

1. Under the heading, 'Data Preparation', it is mentioned that the images were cropped at the region of Optic nerve head (240x240 pixels) to serve as the input to CNNs. Was it automatic or manual? How did you locate Optic disc center/region automatically for every image? Were there any fail cases?

2. Learned weights trained on Imagenet doesn't seem to be a good choice. While Transfer Learning is a sensible choice, could not the CNNs have been trained on eye/fundus Images for better learning instead of Imagenet? Did the authors try training on retinal images from datasets like say STARE/DRIVE/DRISHTI?

3. Was there no previous work done in literature on PPE Vs other optic neuropathies classification? There is no comparison with current techniques in the paper.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess
Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Unable to assess

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English  
Please indicate the quality of language in the manuscript:

Acceptable

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