Reviewer's report

Title: Effects of glaucoma drugs on ocular hemodynamics in normal tension glaucoma: a randomized trial comparing bimatoprost and latanoprost with dorzolamide

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Reviewer: Josef Flammer

Reviewer’s report:

The present manuscript is clearly better than the first manuscript.

Based on the literature and based on my own clinical experience, I am convinced that the results presented are correct. Nevertheless, the way the results are presented could still be better.

I still do not understand why the authors did not compare the treatment effect between the different treatment groups. They only compared within the group, before and after treatment. What would be interesting - both from a scientific point of view as well as from a clinical point of view - is the question, whether there is a significant difference between the different drugs in term of influence on blood blow in the eye. Applying a statistical model would be much more elegant than doing a number of t-test and applying Bonferroni-corrections. Such a correction is theoretically correct, practically, however, a lot of potential interesting information is lost.

The authors still believe that bimatoprost and latanoprost are hemodynamically neutral. As they write themselves, ocular blood flow is reduced in patients with normal tension glaucoma. Any reduction of IOP, especially if it is so pronounced as they have found it, should improve significantly ocular blood flow. This has been shown by several other studies. The fact that latanoprost and bimatoprost do not improve ocular blood flow is an indication that these drugs are not totally neutral in term of vasoactivity.

In summary: The results are convincing, the statistical analysis relatively weak, the discussion unprecise. Nevertheless, due to the fact that this manuscript is clearly better than the first one, from my point of view, one could accept it.

What next?: Accept after discretionary revisions