Reviewer’s report

Title: Efficacy and safety of extended depth of focus intraocular lenses in cataract surgery: a systematic review and meta-analysis

Version: 0 Date: 04 Aug 2019

Reviewer: Sulatha Bhandary

Reviewer's report:

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1. The study is well designed. Authors are well focused on the research question. the article is very nicely written which makes it easily to understand to the readers.

2. Efficacy and safety of extended depth of focus intraocular lenses in cataract surgery: a systematic review and meta-analysis: should this be network meta-analysis when you combine the RCT and non RCT together during analysis. subject to correction. better to get details corrected by statistician

3. in the abstract result section: the authors have dealt with the efficacy of the EDOF IOLs but not addressed any thing about the safety. The aim of the study includes both efficacy and safety.

4. Under the background section, authors have mentioned "Although many studies have been conducted to characterize the efficacy and safety of

5. EDOF IOLs, the clinical evaluation of EDOF IOLs is less clear-cut.” Here authors need to explain what do they exactly mean by clear cut. what are the features authors are interested in or what really prompted them to perform this systematic review.

6. Under background section: authors mentioned "we performed a systematic review and meta-analysis of randomized and nonrandomized controlled studies (NRCSs) to compare the clinical performance of EDOF IOLs with that of monofocal and trifocal IOLs. Finally, our study used only Tecnis Symfony IOL as the representative of EDOF IOLs due the lack of studies on other EDOF lenses. comment: This may be small drawback as the newer EDOF lens performance is not included. however the reasoning by the authors is practical.
7. Under methods search strategy: "The PubMed, EMBASE, Web of Science, ClinicalTrials.gov and Cochrane Library databases (most recently updated in 2019 January) were searched using the keywords "extended depth of focus intraocular lens", "extended range of vision intraocular lens" and "cataract surgery": comments cataract surgery key word search would have given the authors thousands of references the authors can highlight how did they search for the performance of the monofocal and trifocal IOL performance.

8. under methods and search strategy: "Two reviewers (J. L. and Y. D.) independently conducted searches and scanned the abstracts, followed by full-text articles to determine whether the articles met the eligibility criteria. A third reviewer (Y. W.) was consulted when disagreement existed between J. L. and Y. D". Comments: the authors have followed the PRISMA flow chart well and have explained the methodology well.

9. Under methods - eligibility criteria: "We included all clinical controlled 1 studies (randomized or nonrandomized) comparing clinical outcomes of EDOF IOLs with those of control IOLs in patients undergoing cataract surgery. comments: need to mention duration: that is the authors need to mention here time period of data collection.

10. under outcome section- "Thus, contrast sensitivity was instead reported descriptively. comments: Having tools to measure contrast sensitivity, this descriptive analysis may be a drawback.

11. Under outcome section: Halos, spectacle independence and postoperative complications were defined as the secondary outcomes. comments: were these patients with postoperative complications included in analysing the results?

12. under results: complications: Postoperative Complications Two studies [22, 24] reported postoperative complications of EDOF IOLs. The complication reported in the U.S. FDA clinical trial included a rate of 1.35% for cystoid macular edema, 0.68% for pupillary capture, 0.68% for endophthalmitis and 0.68% for hypopyon 6 months postoperatively [24]. comments: As endophthalmitis is mentioned separately, what was the cause for hypopyon at 6 months?

13. Discussion: is written well.

14. conclusion: authors need to a line of safety of the EDOF IOL. They have mentioned only about the efficacy.
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.

Yes

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

Yes

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 recommend additional statistical review

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