The effectiveness and safety of pars plana vitrectomy for Epi-Retinal Membranes in non-infectious uveitis in adults: a systematic review *

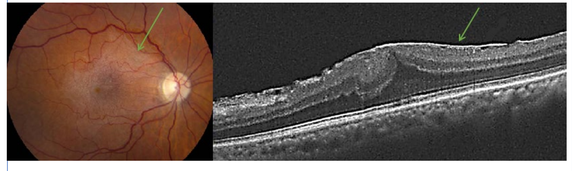
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Introduction

Epiretinal membrane (ERM) is a common complication and leading cause of visual loss in uveitis. It is more likely to occur in chronic uveitis, as well as in older population. ERM is found in (41%) of uveitis patients in one eye at least.

Pars plana vitrectomy with ERM peeling is the surgical management of epiretinal membrane in uveitis . To the knowledge of the authors, There is no consensus or clear guidelines regarding vitrectomy effectiveness and safety for the management of uveitic ERM.



Aim

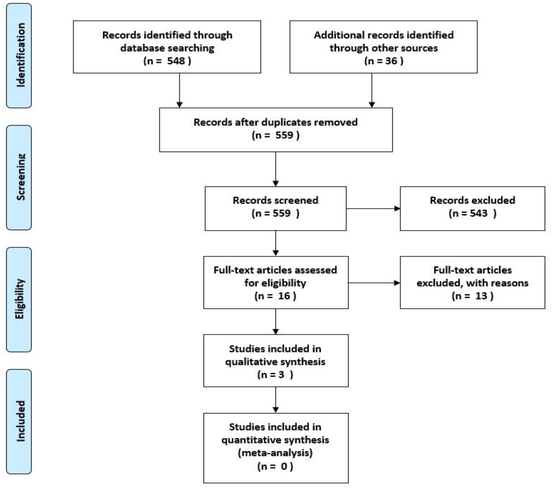
To conduct a systematic review on the effectiveness and safety of pars plana vitrectomy for Epi-Retinal Membranes in non-infectious uveitis.

Methods

- Standard systematic review methodology was employed to identify, select and extract data and assess the quality of included studies
- Bibliographic databases (Cochrane Library, MEDLINE, EMBASE and CINAHL) alongside clinical trials registers were searched on 25th May 2020..
- Studies were included if they were Randomised controlled trials, Non-Randomised controlled trials, observational or retrospective studies.
- No restrictions were placed on either language or date of publication, and translation of non-English language articles was undertaken.
- The review was reported according to the PRISMA guidelines
- Primary outcome was Best corrected visual acuity. Secondary outcomes were adverse events (complications), OCT findings, health related quality of life.

Results

- 16 Full-text articles were assessed for eligibility, of those 3 was meeting the inclusion criteria (all retrospective cohort studies).
- All three studies reported improvement in(BCVA) at final follow up visits in eye where no other macular pathology noted.
- Number of complications was reported (e.g. cataract, glaucoma) , some of which needed subsequent surgeries.



PRISMA flow chart

Conclusion

This systematic review is the latest in the field that present the available evidence to support the effectiveness and the safety of the vitreoretinal surgery for ERM. It was not possible to conduct a meta-analysis.

Our review highlights the lack of strong reliable evidence in the current literature in this area and recommends further randomised clinical trials to be performed. It also emphasizes that meticulous collection and analysis of data reflecting different classifications of uveitis, particularly whether of infectious or non-infectious aetiology should be adopted, as our analysis showed different outcomes for each category.

1. Nicholson, B. P. *et al.* (2014) 'Epidemiology of epiretinal membrane in a large cohort of patients with uveitis', *Ophthalmology*. Elsevier Inc., 121(12), pp. 2393–2398. doi: 10.1016/j.ophtha.2014.06.015.

2. Durrani, O. M., Meads, C. A. and Murray, P. I. (2004) 'Uveitis: A Potentially Blinding Disease', *Ophthalmologica*. Karger Publishers, 218(4), pp. 223–236. doi: 10.1159/000078612.

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