

European Society of Ophthalmology



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Project Abstract

Title: Modification of silicone oil endotamponade duration after macula-on rhegmatogenous retinal detachment repair and its impact on functional and anatomical outcome.

Purpose: Silicone oil (SO) - related visual loss is a sight-threatening issue which occurs during or after SO tamponade in eyes with uncomplicated pars plana vitrectomy (ppV) for rhegmatogenous retinal detachment (RRD) repair. Several case series on SO-related visual loss were published since 2000. This project intends to record the interval between primary SO filling and its removal in eyes with macula-on RRD treated with ppV and to evaluate the impact of the SO endotamponade duration on outcome.

Methods: Before 2021, we collected our own data on SO-related visual loss and found an incidence of 50 % in patients with Fovea-sparing RRD. Because of these results, we started to modify our follow-up practice. To prevent SO-associated visual loss, patients with a primary SO tamponade in macula-on RRD were seen within few weeks after surgery. If at this time point, the retina looked stable, the eyes had SO removal within the next 4 to 6 weeks. Therefore, the overall duration of SO endotamponade in Macula-on cases was limited to about two months. This study aims to evaluate our modified clinical practice with short-term SO tamponade in macula-on RRD cases.

Results: Data analysis of cases with macula-on RRD which had ppV with primary SO endotamponade between 2021 and 2025 will be presented. Detailed evaluation of clinical data, surgical protocols, functional results and anatomical outcome, especially re-detachment rate and rate of unexplained SO-associated visual loss will be evaluated.

Conclusion: This project aims to outline the impact of SO endotamponade duration on outcome after RRD repair in foveal-sparing RRD. It can help to collect more data on the recommended time point for SO removal and individual risks of shorter/longer SO filling.