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## Background

Retinal detachments (RD) are one of the worst prognostic factors in open globe injuries (OGI). Detachment may only present later in follow-up, and posterior examination can be irregular, preventing prompt intervention.

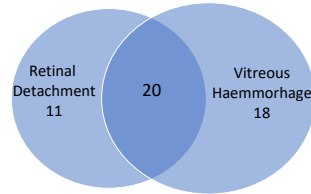
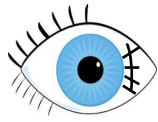
## Aims

Primary: To investigate the prevalence and time of onset of RD in a large cohort of OGI managed at a tertiary referral unit in West London.  
 Secondary: Final best corrected visual acuity (fBCVA) of eyes with OGI associated RD.

## Methods

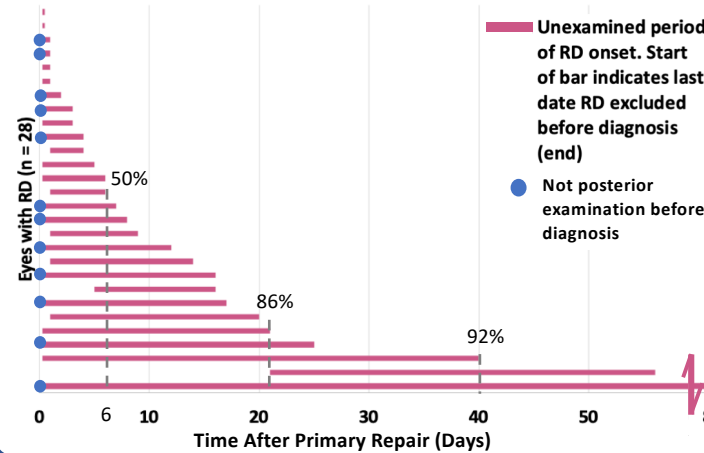
Retrospective review of electronic notes over a 7 year period (1/3/2015 and 31/12/2022) of patients with OGI repair at The Western Eye Hospital, London.  
 Exclusion Criteria: Visually significant ocular history, removal of eye at any time and follow-up <60 days after primary repair.

## Results

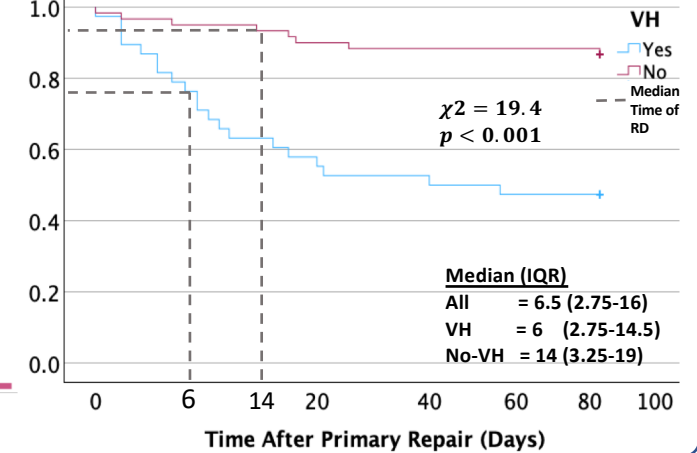


123 eyes with OGI. 101 included in final analysis

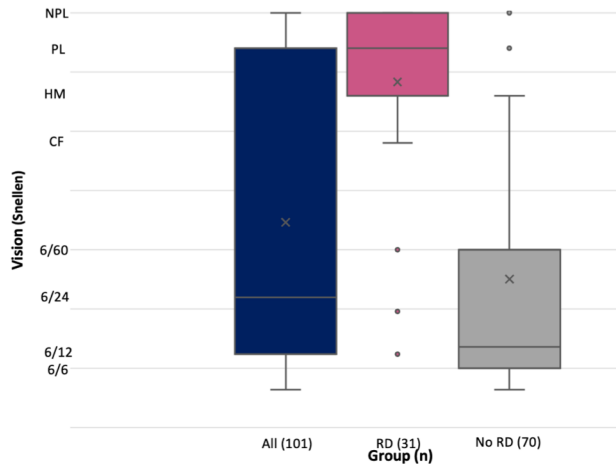
Timeframe of retinal detachment occurrence



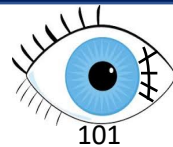
Incidence of RD Over Time by Presence of VH



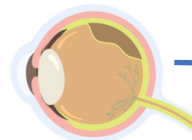
Median Final Best Corrected Visual Acuity Between Groups



## Key Results



31%



Median fBCVA of PPV group = HM vs NPL unoperated.

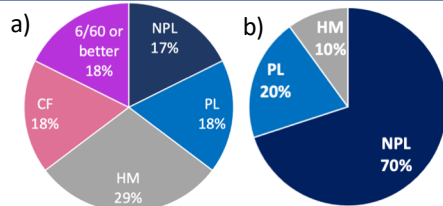
21% RD = diagnosed day 7+ without previous posterior exam

In eyes with VH, 53% → RD & 1 week earlier

38% get CF or better

## Conclusion & Significance

- This identifies a crucial RD risk period post OGI
- Consider frequent & regular posterior examination in the initial 3 weeks after injury
- Earlier RD detection and PPV may improve outcomes
- PPV saves a significant number of eyes from an NPL outcome and protects navigational vision
- Eyes with VH diagnosed with RD earlier than not
- Consider early PPV in VH eyes



fBCVA of RD group:  
 a) Undergoing pars plana vitrectomy (PPV) at any time  
 b) Not operated