

# Diagnostic Dilemma: A Case Report on Non-Resolving Chronic Vitreous Haemorrhage Secondary to Idiopathic Vasculitis or Trauma with Macular Hole

Dr Praveen Kumar

Junior Resident, Department of Ophthalmology, Mahatma Gandhi Institute of Health Sciences, Navi Mumbai

**Abstract:** This case report discusses a diagnostic dilemma and the timely management of chronic vitreous hemorrhage in a 50-year-old female patient with a history of head trauma from a road traffic accident. The patient presented with progressive, painless vision loss in the left eye over a year. Despite extensive investigations, the cause of the hemorrhage remained inconclusive. During a 25 G Pars Plana Vitrectomy, intraoperative findings revealed a full-thickness macular hole and peripheral vein congestion, suggesting idiopathic retinal vasculitis as a possible cause. Postoperative care included topical steroids and antibiotics, with significant improvement in the patient's vision. This case highlights the complexities in diagnosing and managing vitreous hemorrhage, emphasizing the need for thorough evaluation and individualized treatment strategies.

**Keywords:** vitreous hemorrhage, idiopathic retinal vasculitis, pars plana vitrectomy, macular hole, vision loss

## 1. Introduction

- Vitreous hemorrhage is the presence of extravasated blood within a space lined by posterior lens capsule anteriorly, internal limiting membrane (ILM) posteriorly, and non-pigmented epithelium of ciliary body laterally.
- The incidence of vitreous hemorrhage varies depending on the population studied and underlying risk factors.
- In general, it is estimated to occur in approximately 7 to 20 per 100,000 persons per year in the general population.

**Keywords:** Vitreous hemorrhage, Idiopathic vasculitis, Macular hole, Pars plana vitrectomy, Retinal vascular disorders, Ophthalmology, Diagnostic challenges, Chronic eye conditions, Trauma-related eye injuries, Visual acuity improvement

- However, the incidence may be higher in certain groups, such as those with diabetic retinopathy, trauma, or other underlying retinal vascular disorders. Additionally, the incidence tends to increase with age.
- The incidence of vitreous hemorrhage in patients without significant comorbidities is estimated to be around 0.001% to 0.002% per year.

### Purpose

- The purpose of the case report is to discuss a diagnostic dilemma in a case involving chronic vitreous hemorrhage and timely management of a case of vitreous haemorrhage.

### Case Report

- A 50-year-old female patient, residing in Panvel, presented to our OPD with complaints of gradual,

painless, progressive loss of vision in left eye since one year.

- Patient had no history of any co-morbidities and was not on any systemic medications.
- Patient gave a history of head trauma due to road traffic accident which happened four years ago.

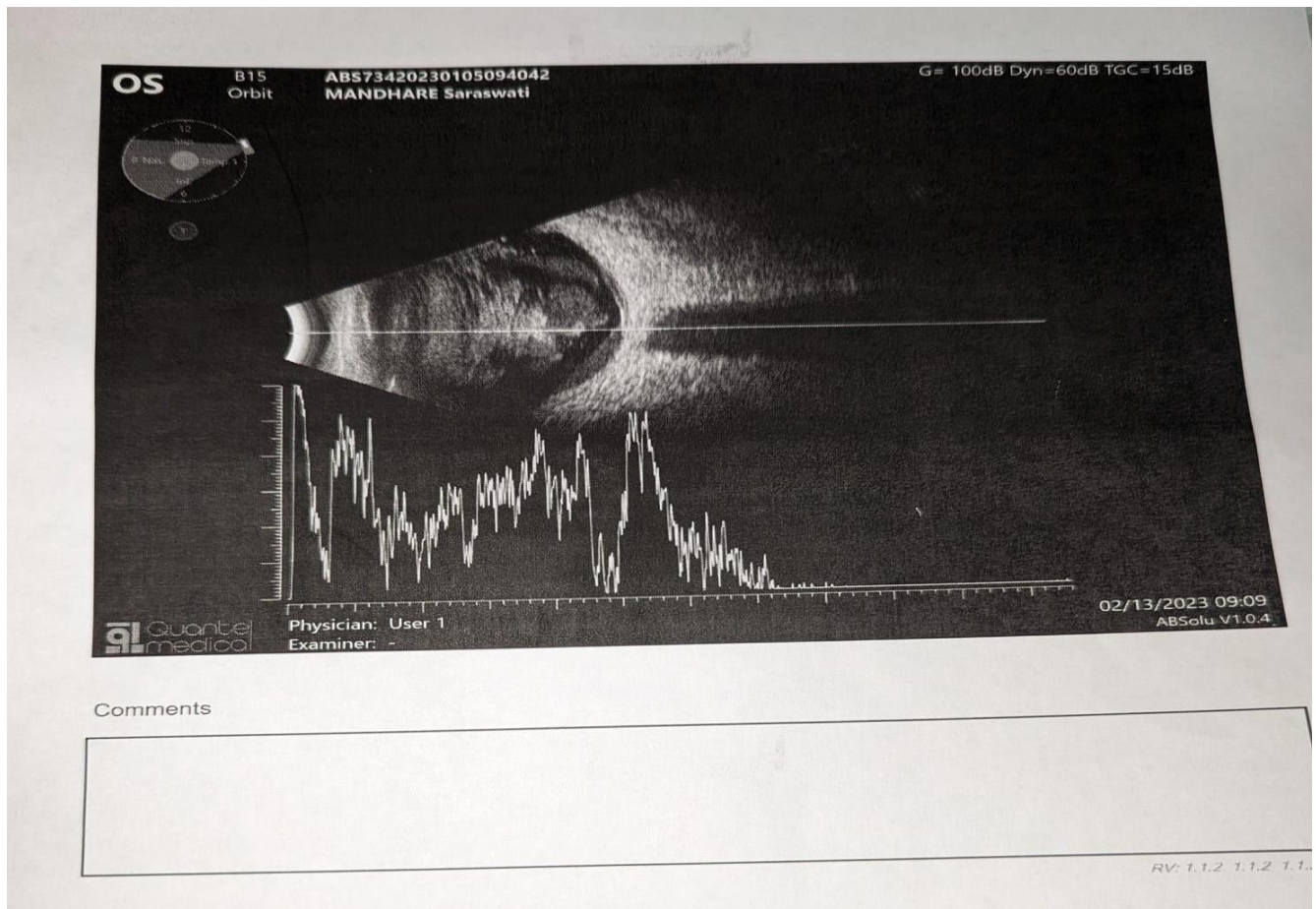
### Examination

	OD	OU
Visual Acuity	6/12 - >6/9	HMCF, PL+ve, PR accurate
BCVA	+0.75/+0.25[at]18 0 - > 6/6, + 2.00	-
IOP with GAT	12 mm Hg	12 mmHg
	OD	OU
Eyelids	NORMAL	NORMAL
Conjunctiva	NORMAL	NORMAL
Cornea	CLEAR	CLEAR
Pupil	3 mm RRR	3 mm RRR
Lens	IMC	IMC
Anterior Chamber Depth	NORMAL	NORMAL

### Fundus Examination

OD	OU
MEDIA - CLEAR/OPTIC DISC - HNRR/C: D RATIO 0.3: 1/AV - NORMAL/FOVEAL REFLEX - DULL/MACULA - NORMAL	Details Not Seen

- USG B SCAN
- RE - WNL
- LE - DIFFUSE HYPERECHOGENIC VITREOUS OPACITIES WITH POSTERIOR SHADOWING was noted



- PROVISIONAL DIAGNOSIS
- LEFT EYE VITREOUS HAEMORRHAGE OF UNKNOWN ETIOLOGY
- LEFT EYE RETINAL VASCULITIS OF UNKNOWN ETIOLOGY
- Patient was investigated for all possible causes of vitreous haemorrhages such as
  - Serum homocysteine levels
  - Bleeding time,
  - Clotting time,
  - Chest X ray,
  - ECG,
  - Lipid profile
  - ESR,
  - CRP,
  - HbA1c,
  - CBC,
  - HHH,
  - Carotid doppler.
- The cause of the vitreous haemorrhage was inconclusive from all the investigations we did.
- Patient was taken for surgery.
- 25 G Pars Plana Vitrectomy was the surgery that was planned
- Intra operatively, after core vitrectomy was done, we found a full thickness macular hole. Peripheral veins were congested.
- So, we had to do ILM peeling, air fluid exchange and Endolaser was done.
- Patient was counselled to maintain head down position after surgery.
- On POD 1 patient had HMCF, PL+ve, PR accurate,
- Patient was started on topical steroids hourly and topical antibiotics.
- On POD 5 patient's unaided distant vision improved to 6/60 not improving with pinhole.
- On POD 30 patient's unaided vision was 6/60 not improving with pinhole.

Volume 13 Issue 7, July 2024

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

[www.ijsr.net](http://www.ijsr.net)



## 2. Summary

This case report presents a diagnostic dilemma involving a 50 - year - old female patient with chronic vitreous hemorrhage in her left eye, secondary to either idiopathic vasculitis or trauma - related complications, including a macular hole. The patient had a history of head trauma from a road traffic accident four years prior but no significant comorbidities. Despite extensive investigations, the etiology of the vitreous hemorrhage remained inconclusive. The patient underwent a 25G pars plana vitrectomy, which revealed a full - thickness macular hole and peripheral vein congestion. Postoperative management included topical steroids and antibiotics, with significant improvement in the patient's vision. The case underscores the complexity of diagnosing and managing vitreous hemorrhage, emphasizing the need for thorough evaluation and timely intervention

## 3. Conclusion

- We suspect the Vitreous Haemorrhage was probably due to idiopathic retinal vasculitis based on our intra operative findings
- We did cataract surgery for the patients left eye after 2 months of surgery and the patient is being regularly followed up in our OPD
- This case report illustrates the diagnostic challenges encountered in a patient presenting with chronic vitreous hemorrhage.
- Despite extensive investigations including serological tests, imaging studies, and exclusion of systemic causes, the underlying etiology remained inconclusive. Intraoperative findings during left eye pars plana vitrectomy revealed a macular hole and peripheral vein congestion, suggesting a possible idiopathic retinal vasculitis as the cause of vitreous hemorrhage.
- The patient's vision significantly improved following surgical intervention, highlighting the importance of timely management in cases of unresolving vitreous hemorrhage.
- This case emphasizes the complexity of diagnosing and managing vitreous hemorrhage, underscoring the need for thorough evaluation, interdisciplinary collaboration, and individualized treatment strategies to optimize visual outcomes and patient care.
- Further research and clinical studies are warranted to enhance our understanding of the pathogenesis and management of vitreous hemorrhage in similar cases.

### Acknowledgement

- Heartfelt thank you to Dr Varshav Gore sir our HOD and Dr Syed Faraaz Hussain sir, who treated the patient and encouraged me to present this case report
- A big thank you to all my professors and faculties who helped me in
- making this paper presentation.
- Thank you to my seniors and juniors who helped me in organizing and collecting data for the case report.

No financial interests to declare