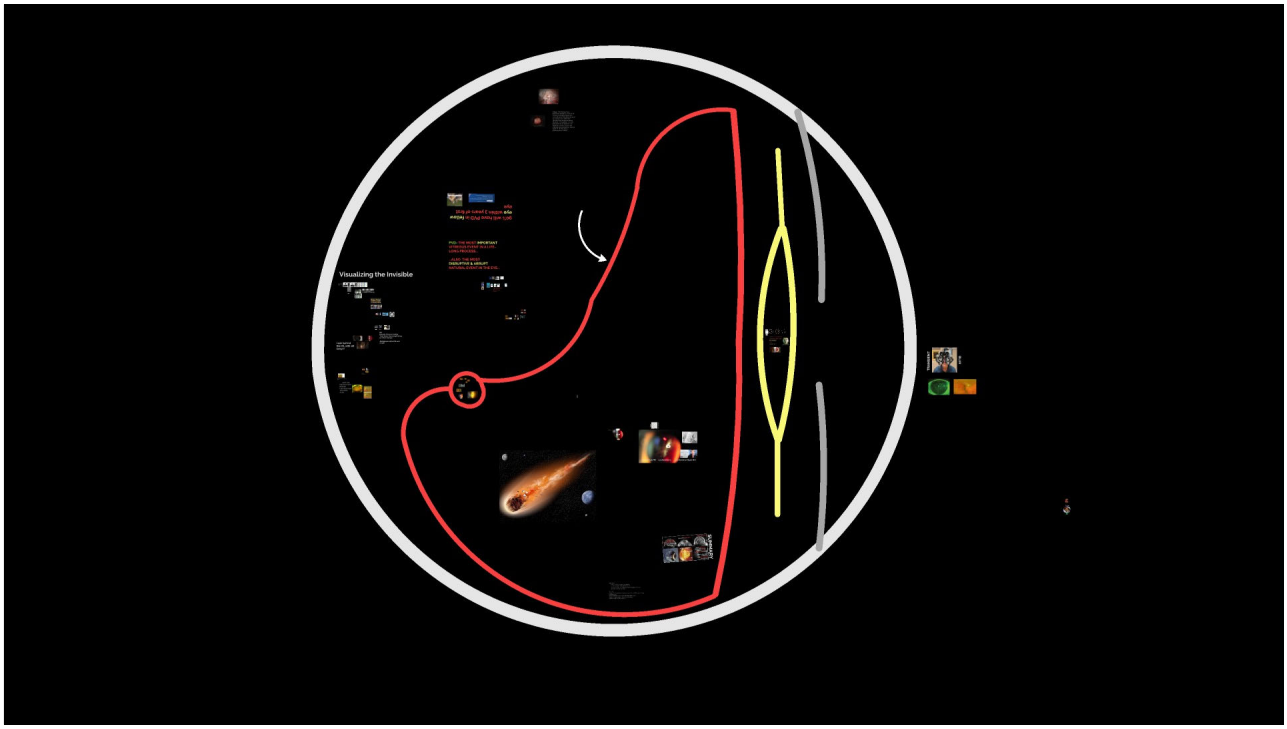


tulsaeyespecialty

surgery and laser services:

- Ellex Laser Floater Treatment
- PRK*
- Low Level Light Therapy for MGD & Chalazion
- Cryotherapy for Eyelid Lesions
- Surgical Lesion Excision
- Chalazion I&C
- MG Expression & Probing
- Punctal Plugs
- Lacrimal Dilation & Irrigation
- Superficial Keratectomy
- Amniotic Membranes
- VAG Capsulotomy
- VAG Iridotomy
- SLT

*PRK done by Dr. Whitley @OMEG

Disclosures:

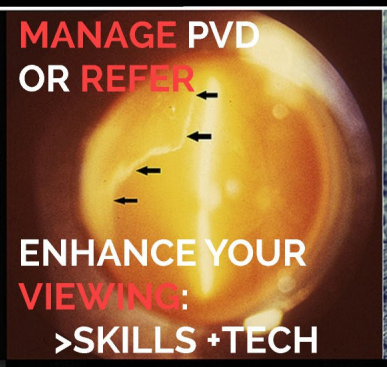
Lumenis-
Key Opinion Leader

Also… apologies in advance for the disorienting nature of Prezi…

SUMMARY

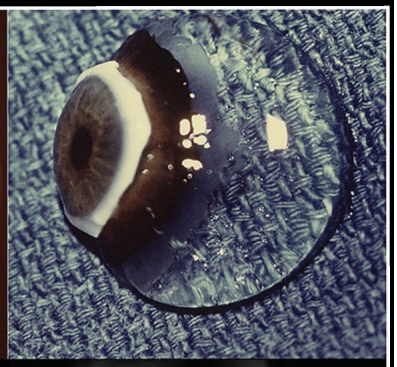
VITREOUS IS FASCINATING AND UNTAPPED
>MUCH TO LEARN

CONSIDER SYMPTOMS
>DON'T IGNORE
>TRANSIENT BLUR
>PARADIGM SHIFT



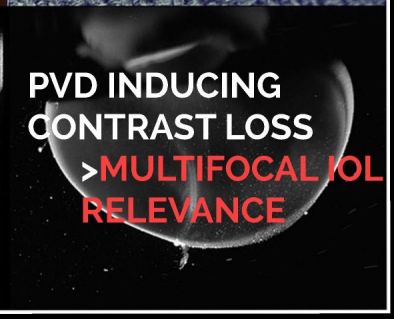
MANAGE PVD OR REFER

ENHANCE YOUR VIEWING:
>SKILLS +TECH

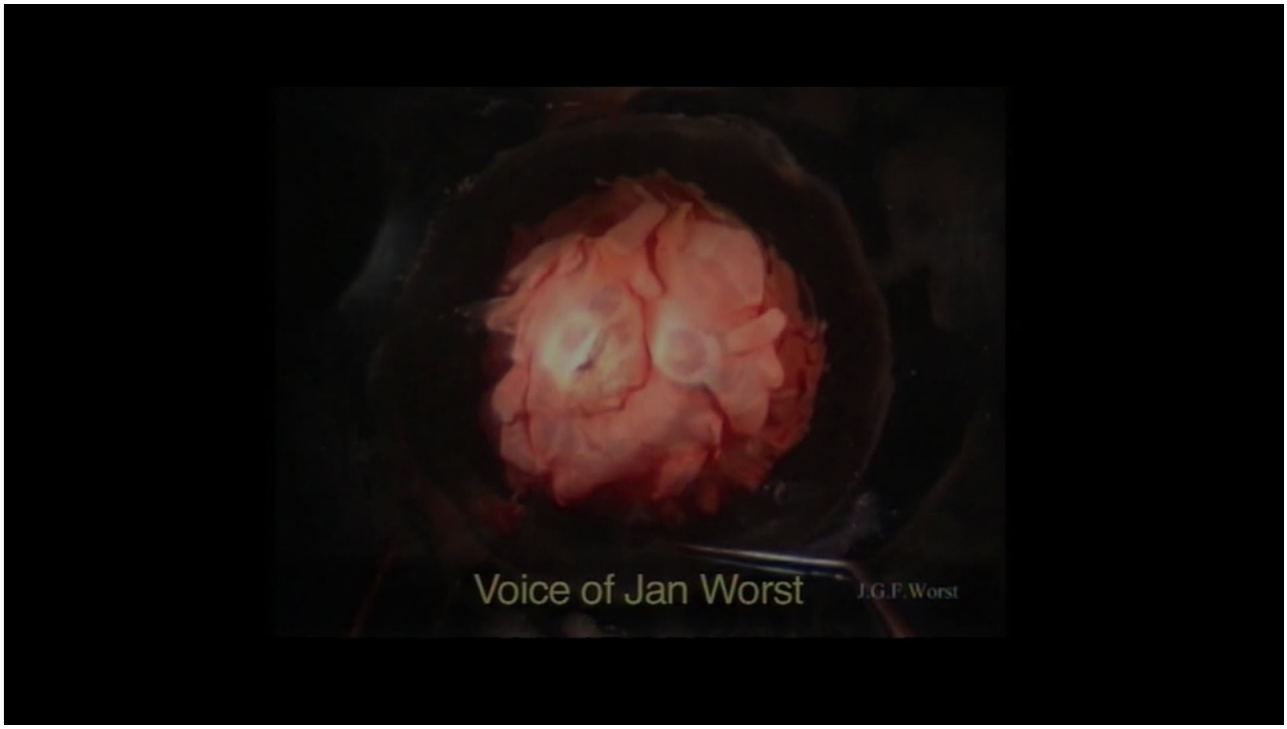


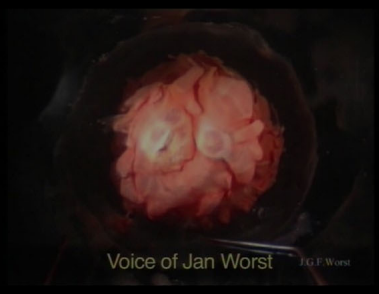
FLOATER TYPES...

CAT SURG and PVD



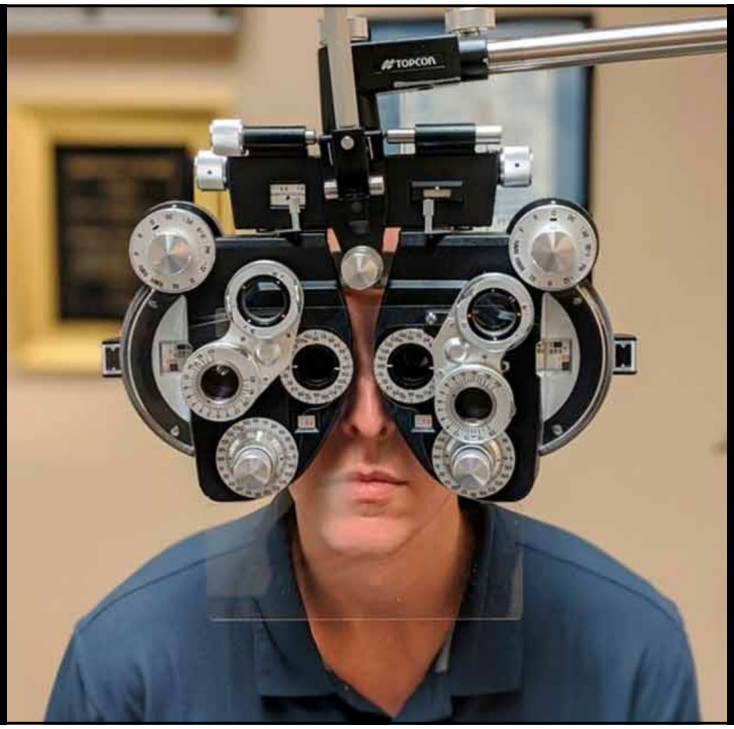
PVD INDUCING CONTRAST LOSS
>MULTIFOCAL IOL RELEVANCE



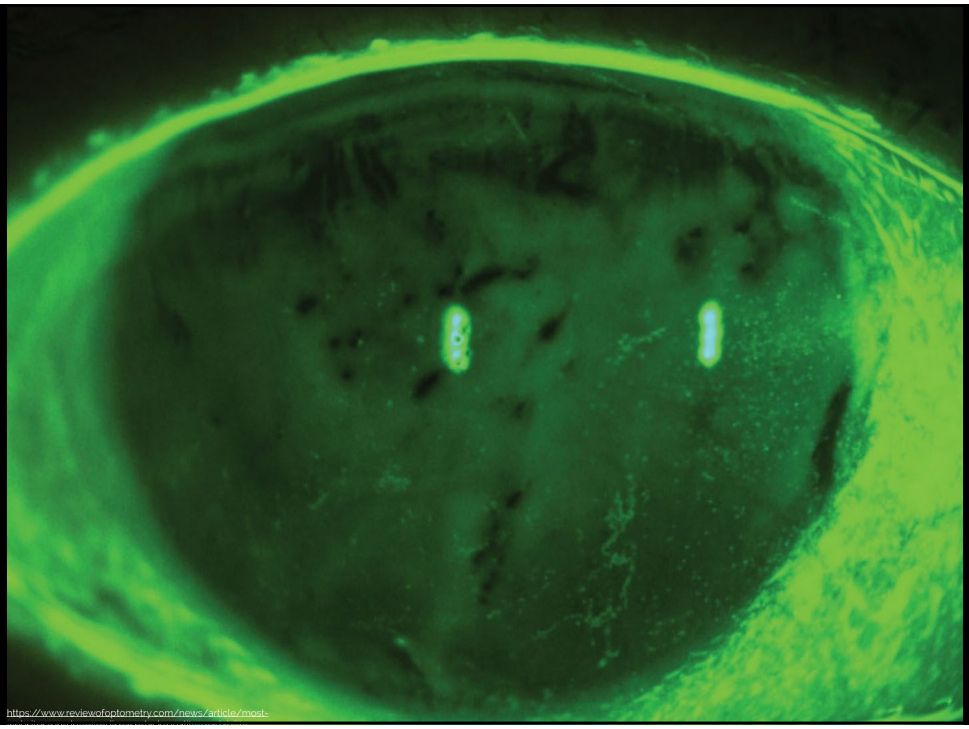


Sebag- "His findings have particular relevance in this era of frequent intravitreal injections where there is little attention paid to exactly where within the vitreous body drugs are being injected. For example, it is very plausible that an injection into Cloquet's canal will have very different drug distribution than an injection into the bursa premacularis of Worst."

TRANSIENT

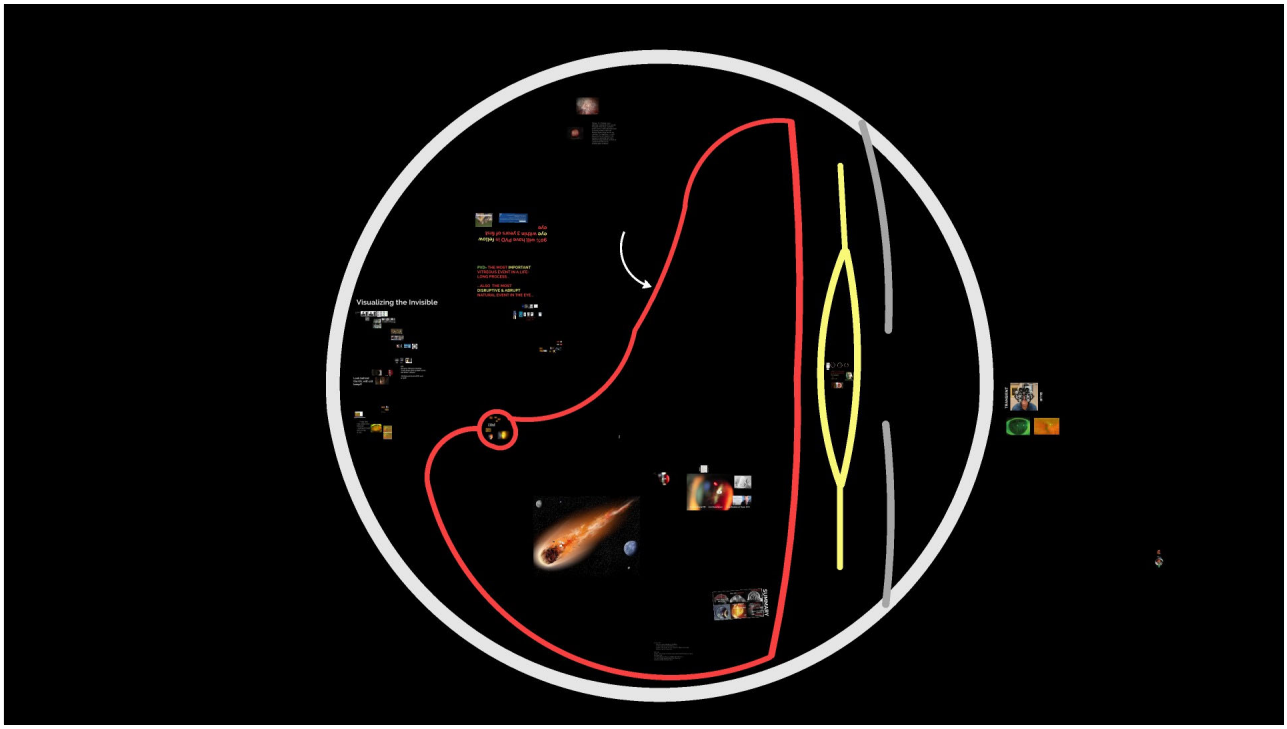


BLUR



https://www.reviewofoptometry.com/news/article/most-


https://www.floater-vitreolysis.net/diagnostics/optos/optos_examples/index.html


Visualizing the Invisible

PVD= THE MOST IMPORTANT VITREOUS EVENT IN A LIFE LONG PROCESS...

...ALSO THE MOST DISRUPTIVE & ABRUPT NATURAL EVENT IN THE EYE...

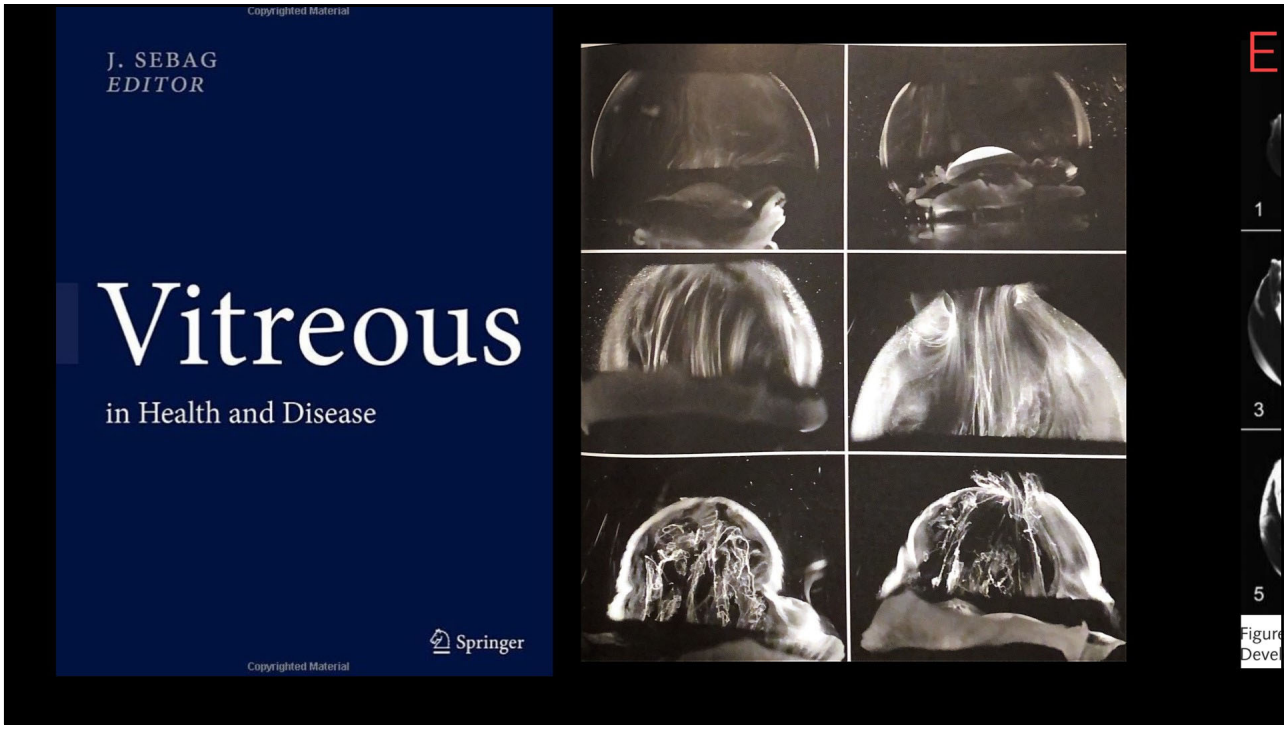


Figure 3:
Development and agi

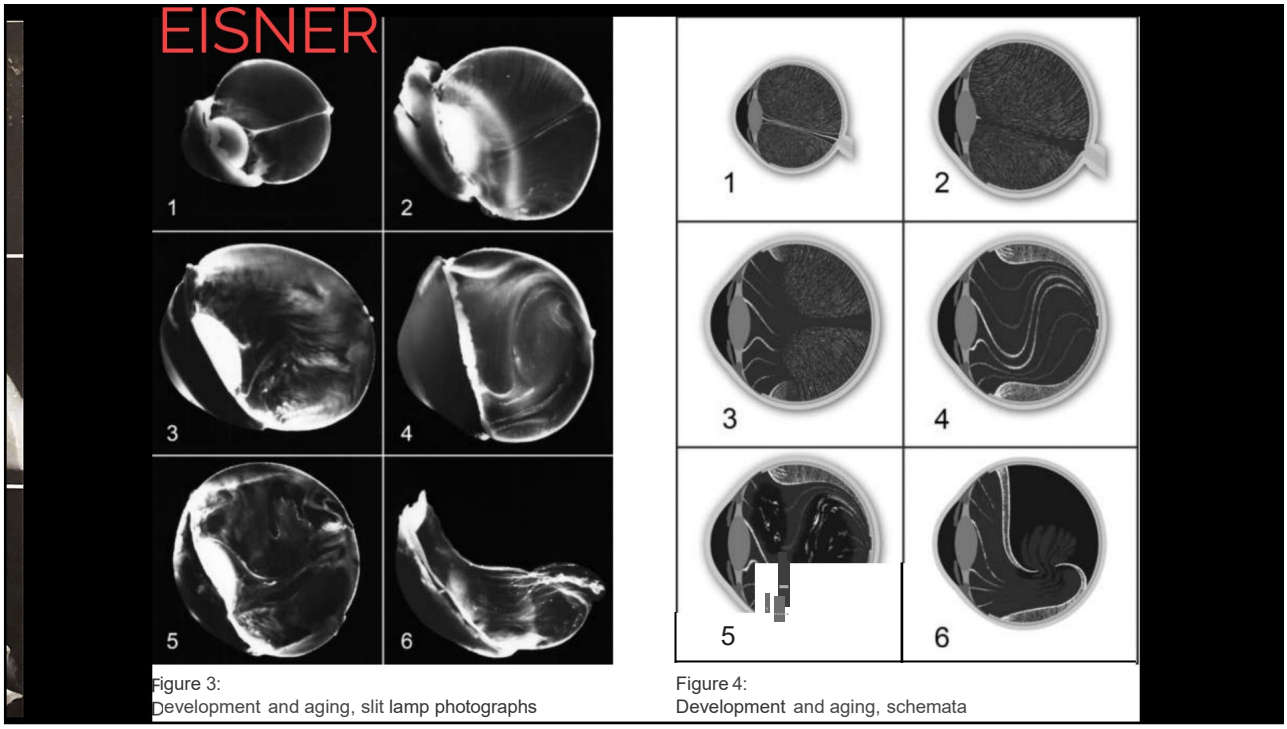
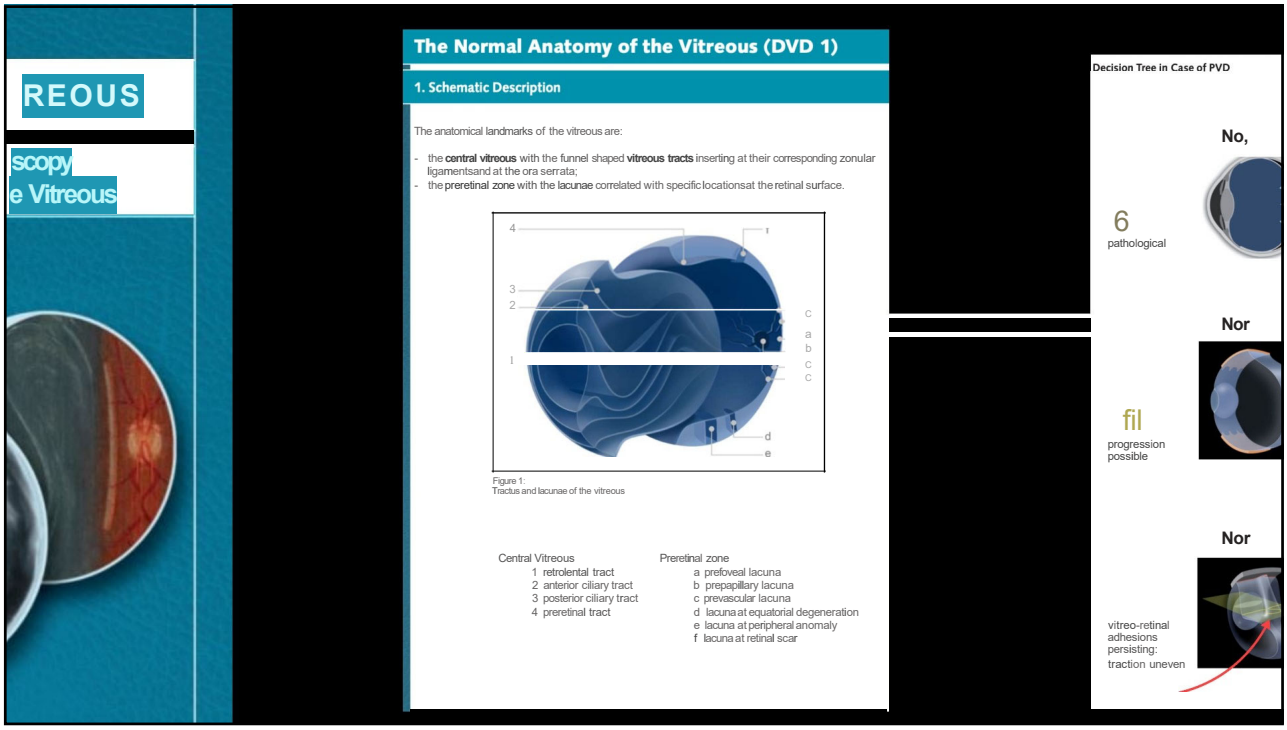
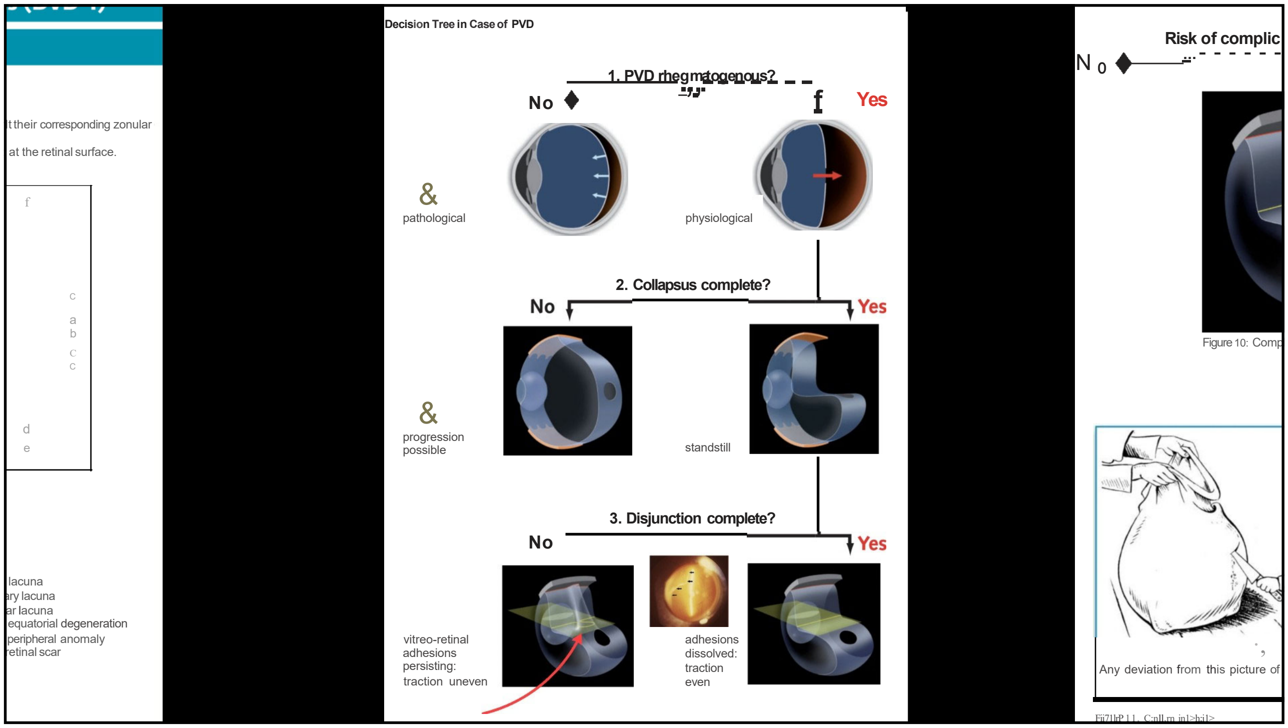


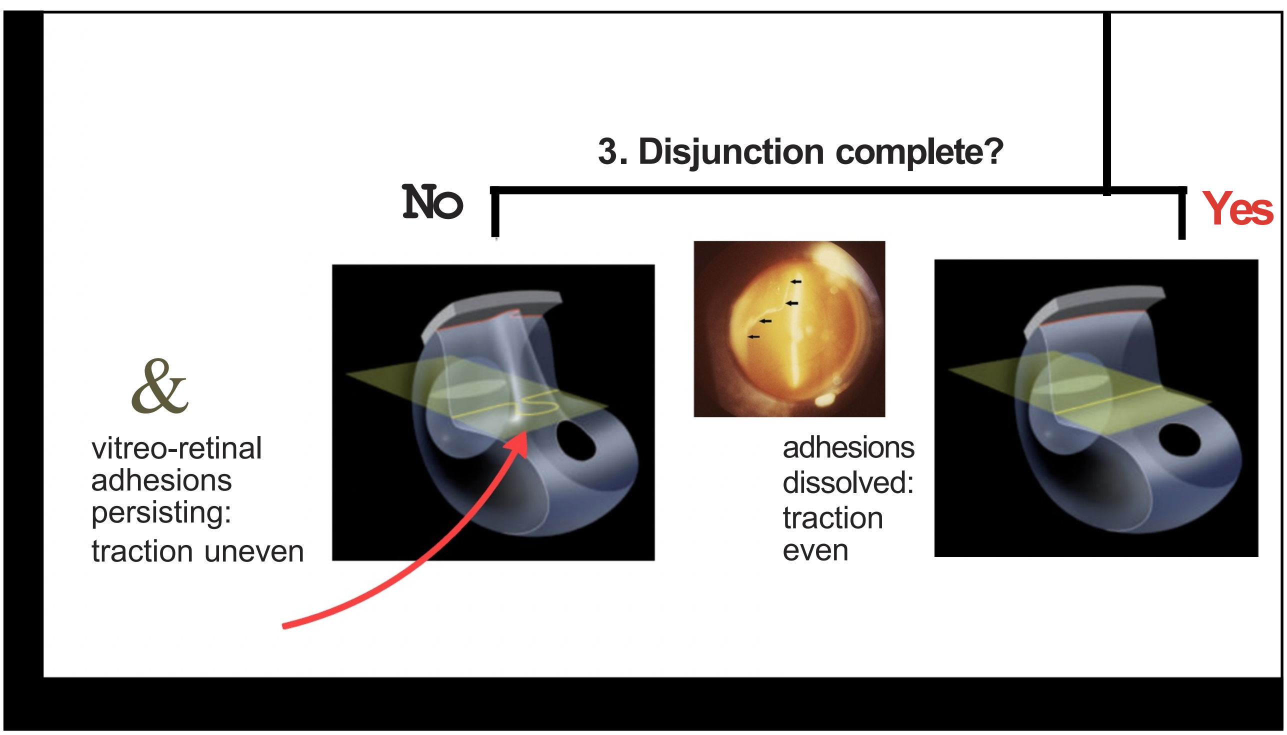
Figure 3:
Development and aging, slit lamp photographs

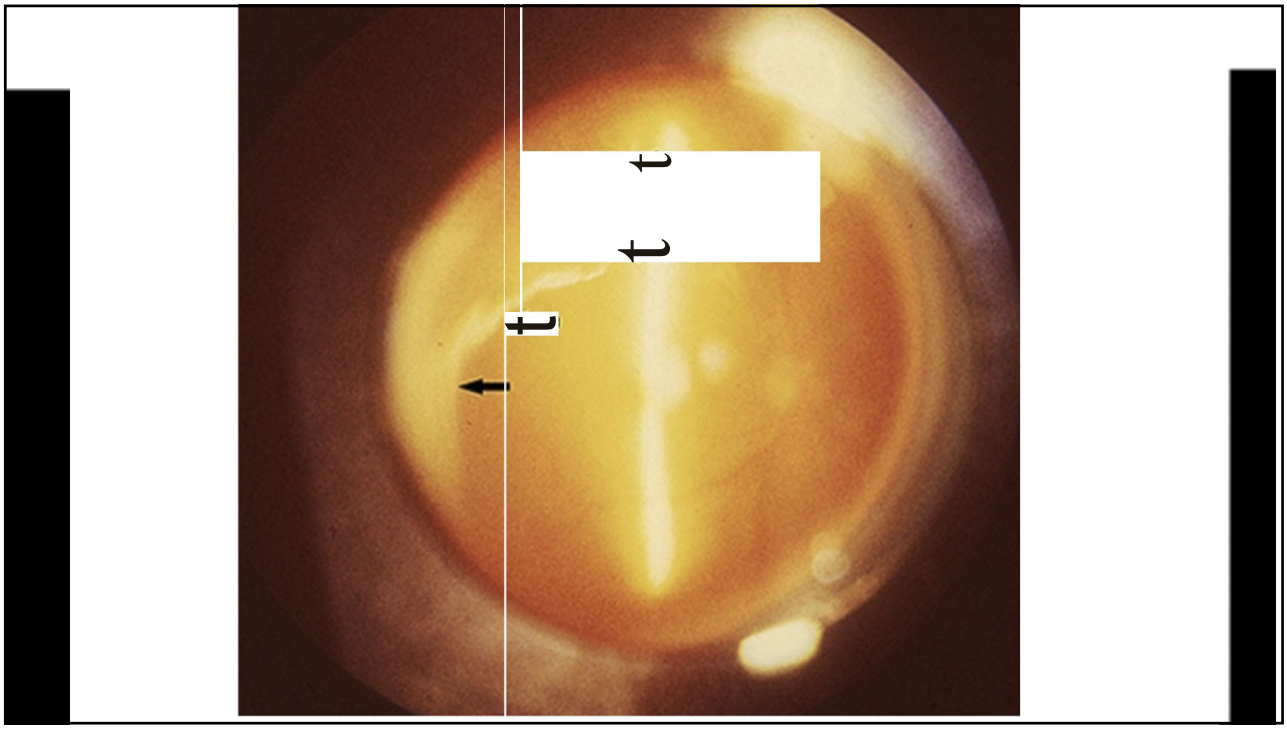
Figure 4:
Development and aging, schemata


The Ophthalmic Laser Handbook
Lars Freisberg
Nate Lighthizer
Leonid Skorin, Jr.
Karl Stonecipher
Aaron B. Zimmerman
Wolters Kluwer
Laser Treatment Of Eye Floaters
Georg Eisner
DR. SHERLOCK'S VITREOUS
An Introduction to Biomicroscopy in the Clinical Examination of the Vitreous
05 I 2008
The Normal Anatomy of the Vitreous (DVD 1)
1. Schematic Description
Treat
> DFE


REOUS
scopy
e Vitreous
The Normal Anatomy of the Vitreous (DVD 1)
1. Schematic Description
The anatomical landmarks of the vitreous are:
- the central vitreous with the funnel shaped vitreous tracts inserting at their corresponding zonular ligamentsand at the ora serrata;
- the preretinal zone with the lacunae correlated with specific locationsat the retinal surface.
Figure 1:
Tractus and lacunae of the vitreous
Central Vitreous
1 retrolental tract
2 anterior ciliary tract
3 posterior ciliary tract
4 preretinal tract
Preretinal zone
a prefoveal lacuna
b prepapillary lacuna
c prevascular lacuna
d lacuna at equatorial degeneration
e lacuna at peripheral anomaly
f lacuna at retinal scar
Decision Tree in Case of PVD
No,
6
pathological
Nor
fil
progression
possible
Nor
vitreo-retinal
adhesions
persisting:
traction uneven

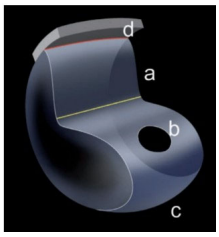

t their corresponding zonular
at the retinal surface.
lacuna
ry lacuna
ar lacuna
equatorial degeneration
peripheral anomaly
etinal scar
Decision Tree in Case of PVD
1. PVD rhegmatogenous?
No
Yes
&
pathological
physiological
2. Collapsus complete?
No
Yes
&
progression possible
standstill
3. Disjunction complete?
No
Yes
vitreo-retinal adhesions persisting: traction uneven
adhesions dissolved: traction even
Risk of complic
Figure 10: Comp
Any deviation from this picture of


3. Disjunction complete?
No
Yes
&
vitreo-retinal adhesions persisting: traction uneven
adhesions dissolved: traction even



gmatogenous?
Yes
physiological
sus complete?
Yes
standstill
tion complete?
Yes
adhesions dissolved: traction even

Risk of complications low?
No
Yes



Criteria:

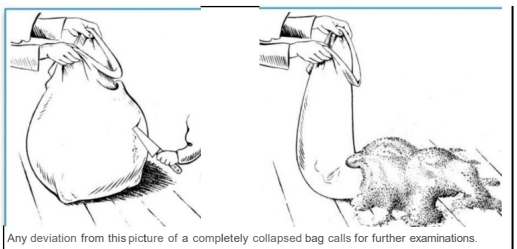
Complete collapsus

a: posterior limiting lamina **vertical**
b: prefoveal hole **horizontal**
c: inferior part of limiting lamina **invisible**

Complete disjunction

d: insertion line of posterior limiting lamina **straight**

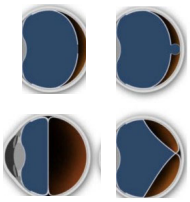
Figure 10: Complete collapsus and complete disjunction



Any deviation from this picture of a completely collapsed bag calls for further examinations.

Figure 11: Collapsing bag

1. Posterior Vitreous Detachments

	Rhegmatogenous PVD	non-rhegmatogenous PVD
Schema	 Figure 7:	 Figure 8:
Aspect	typical	variable
Etiology	physiological	pathological
Detaching Process	collapsing	shrinking
Endpoint of Detaching Process	predictable	unpredictable
Traction	rapid	slow
Resulting Retinal Lesions	tears	folds
Resulting Retinal Detachments	rhegmatogenous	non-rhegmatogenous

RESEARCH THIS...ON YOUR OWN...

PVD= THE MOST IMPORTANT VITREOUS EVENT IN A LIFE LONG PROCESS...

...ALSO THE MOST DISRUPTIVE & ABRUPT NATURAL EVENT IN THE EYE...

Treat PVD like a retina specialist does:

> DFE: w/90+28D [or 20D etc]

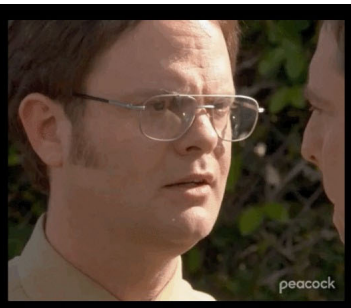
+

> Scleral Depress or B-scan

+

> 5wk Follow-up

CAUTION



IF YOU WON'T DO A PERIPHERAL RETINAL VIEW, YOU SHOULD REFER TO SOMEONE [OD] WHO WILL!

90% will have PVD in fellow eye within 3 years of first eye

ORIGINAL ARTICLE | VOLUME 111, ISSUE 9, P1705-1707, SEPTEMBER 2004

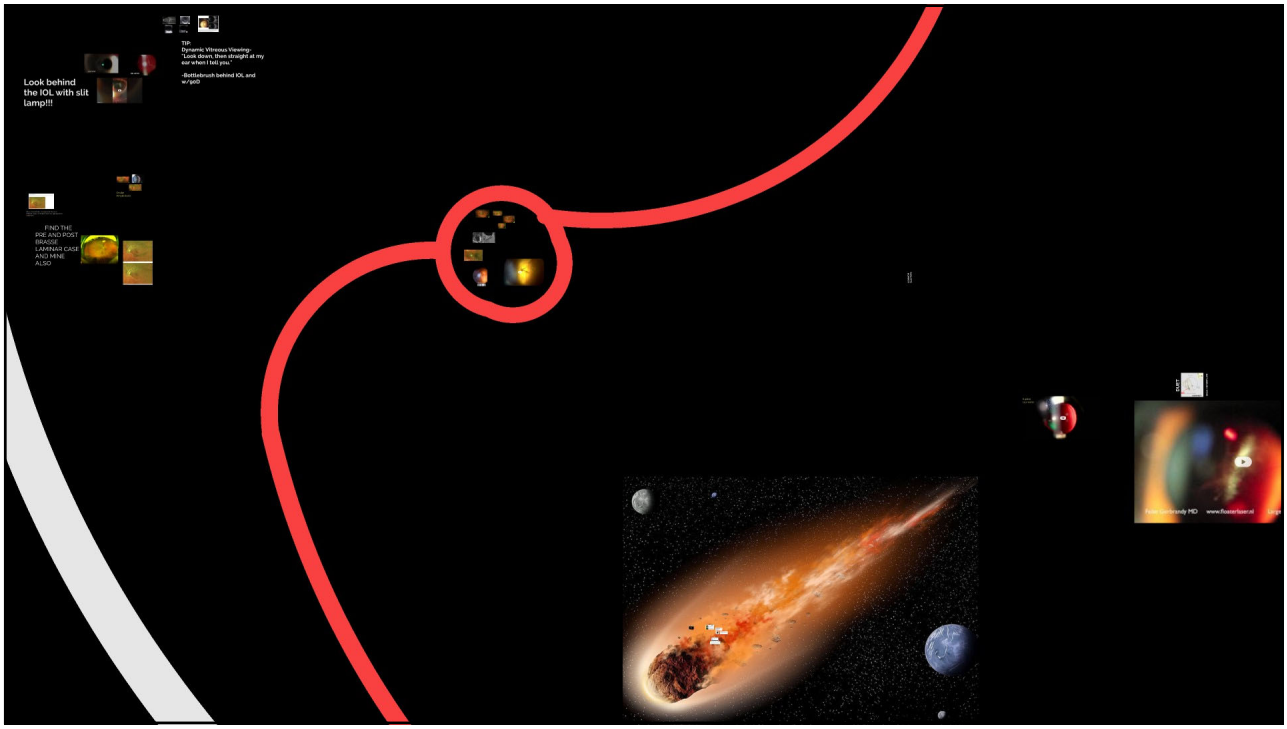
Download Full Issue

Time course of development of posterior vitreous detachment in the fellow eye after development in the first eye

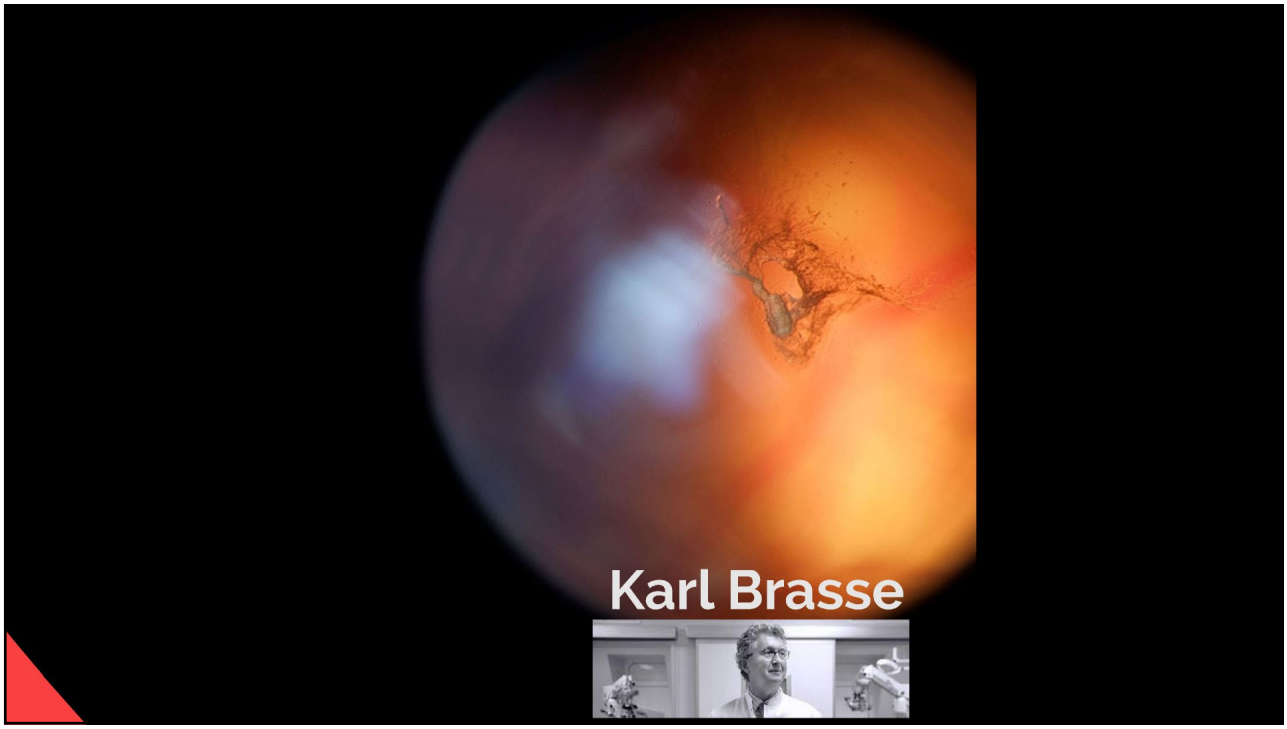
Taiichi Hikichi, MD • Akitoshi Yoshida, MD

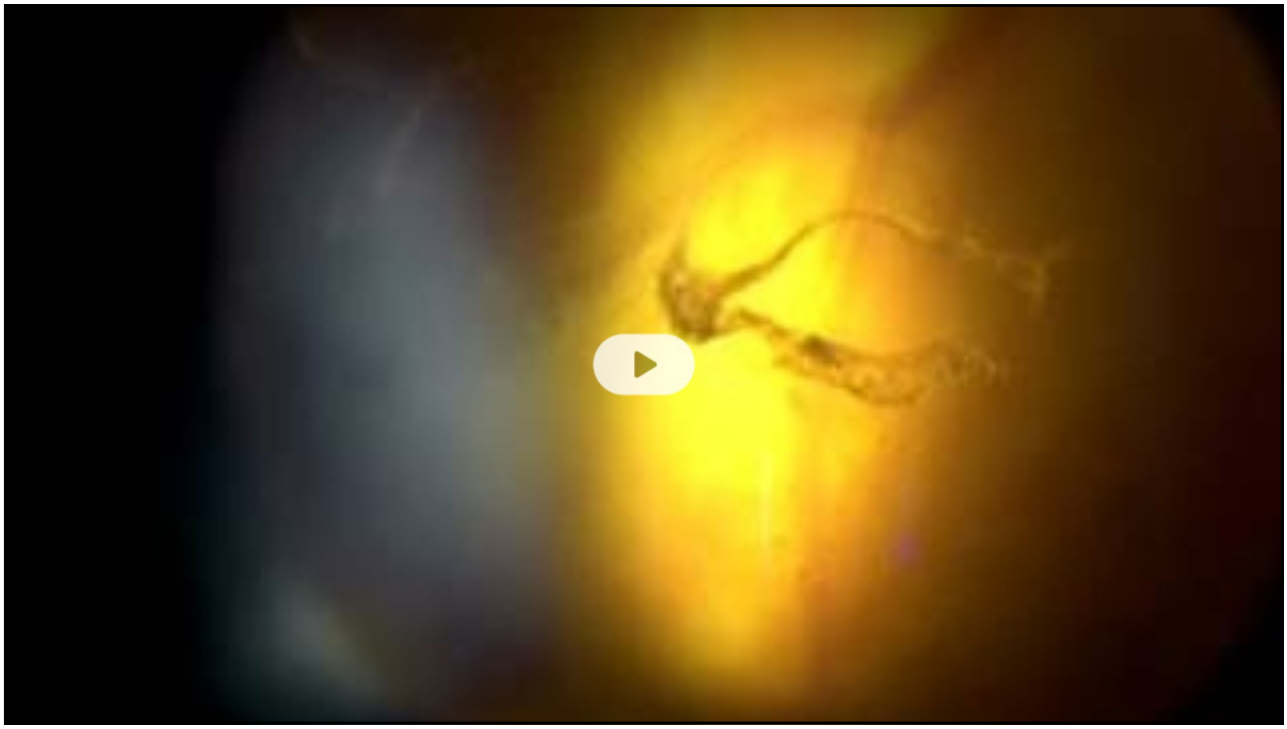
Published: August 19, 2004 • DOI: https://doi.org/10.1016/j.ophtha.2004.02.015

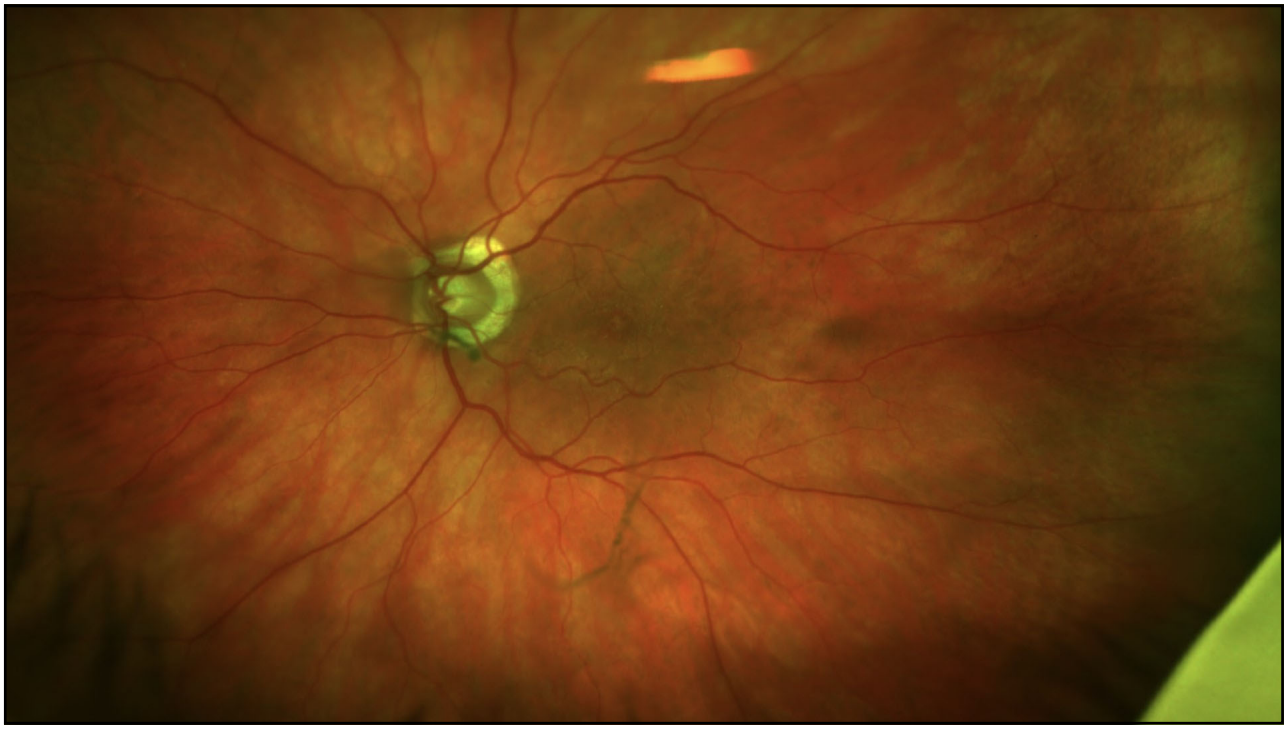
COMMON FLOATERS

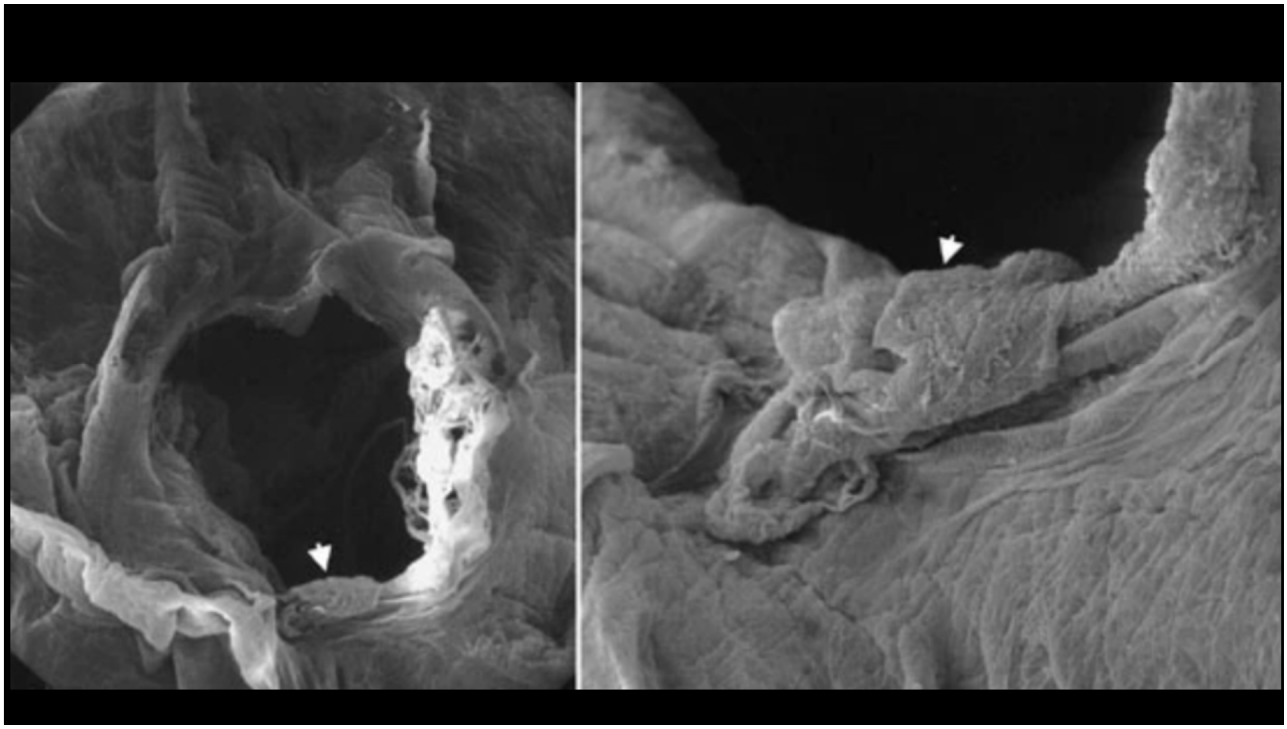


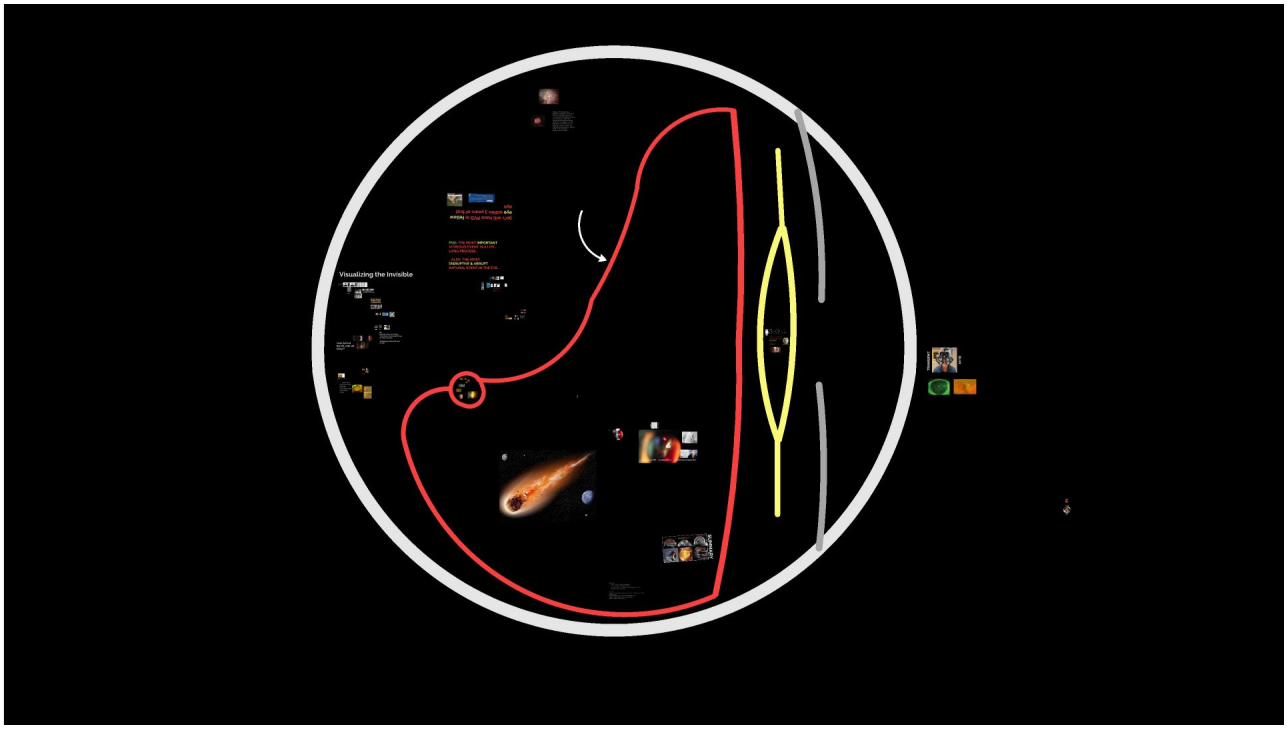

https://eyefloaterstreatment.com/am-i-a-candidate/
Karl Brasse

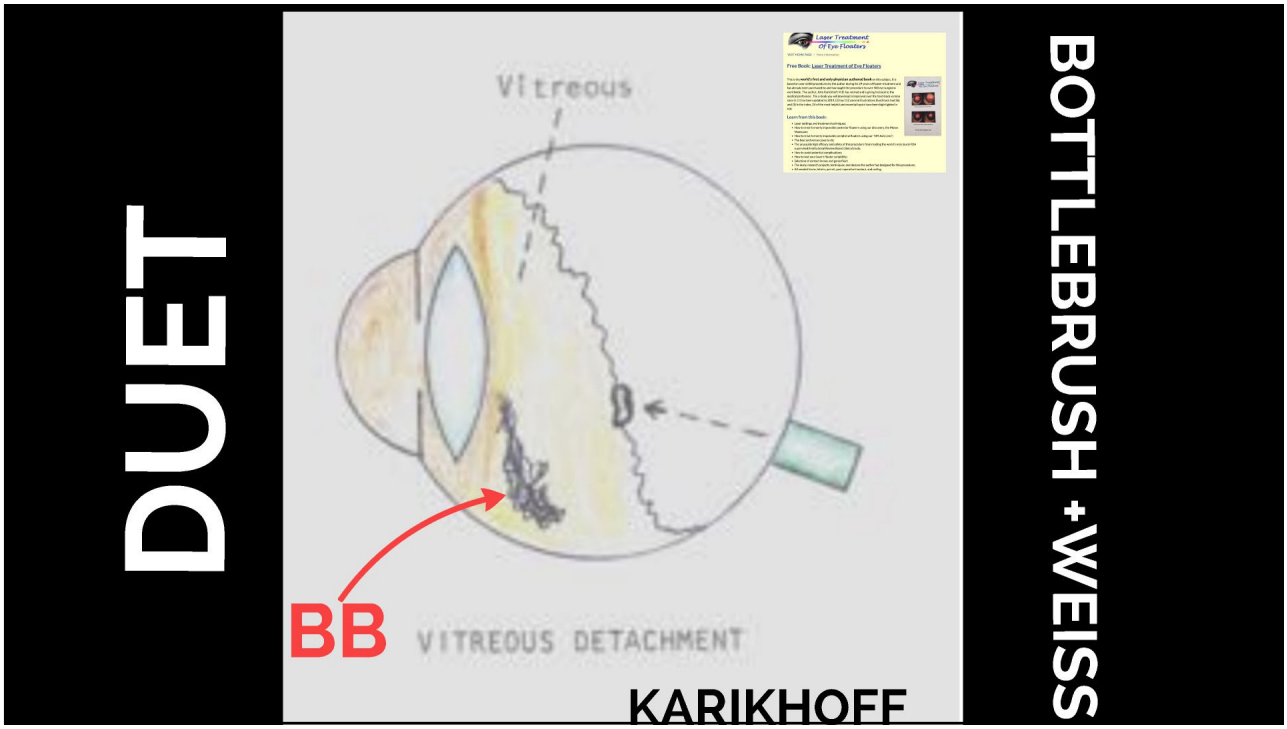

Karl Brasse

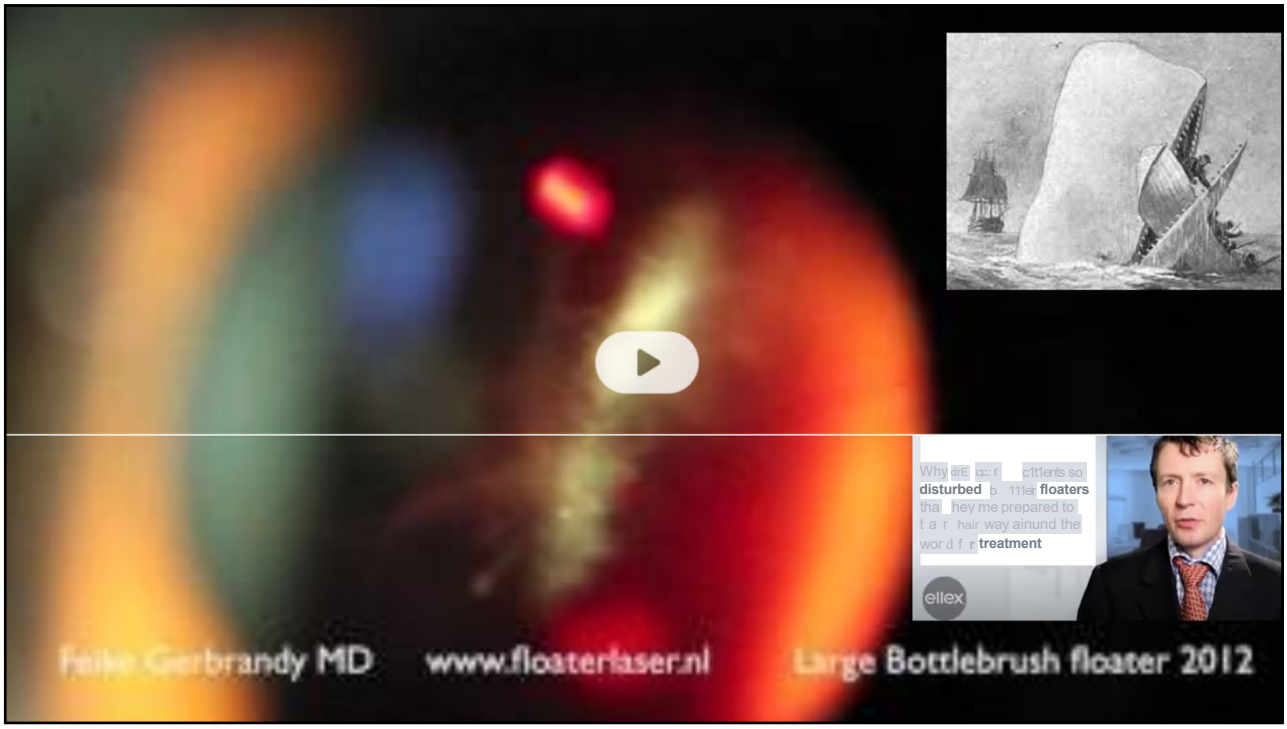


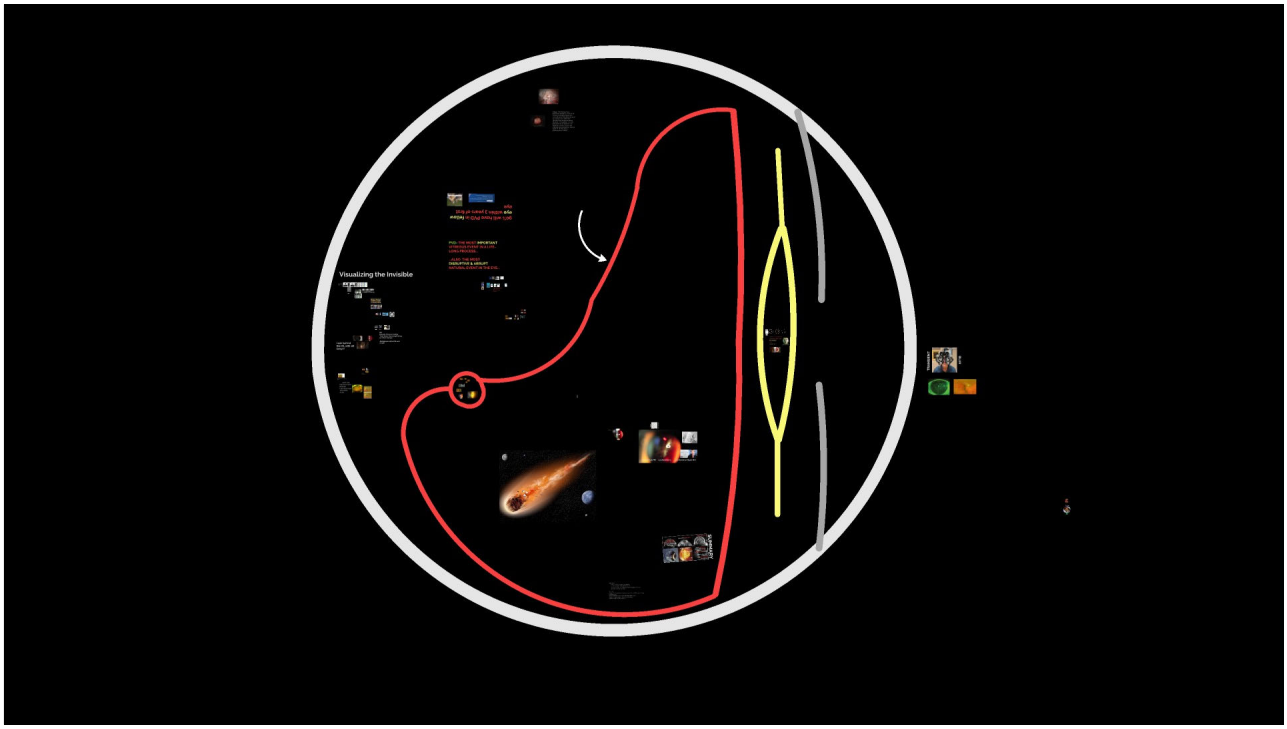





Visualizing the Invisible


DUET
Vitreous
BB
VITREOUS DETACHMENT
KARIKHOFF
BOTTLEBRUSH + WEISS


Why are our clients so disturbed by floaters that they are prepared to travel way around the world for treatment
ellex
Feike Gerbrandy MD
www.floaterlaser.nl
Large Bottlebrush floater 2012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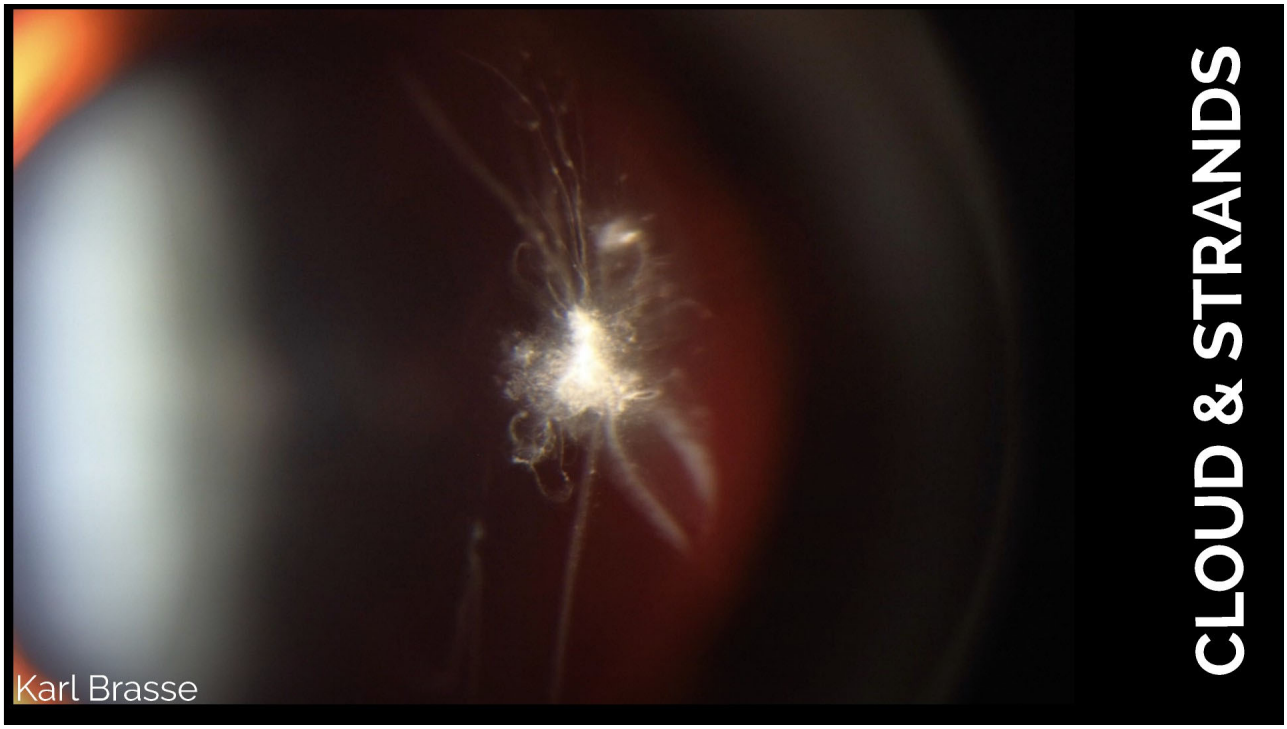
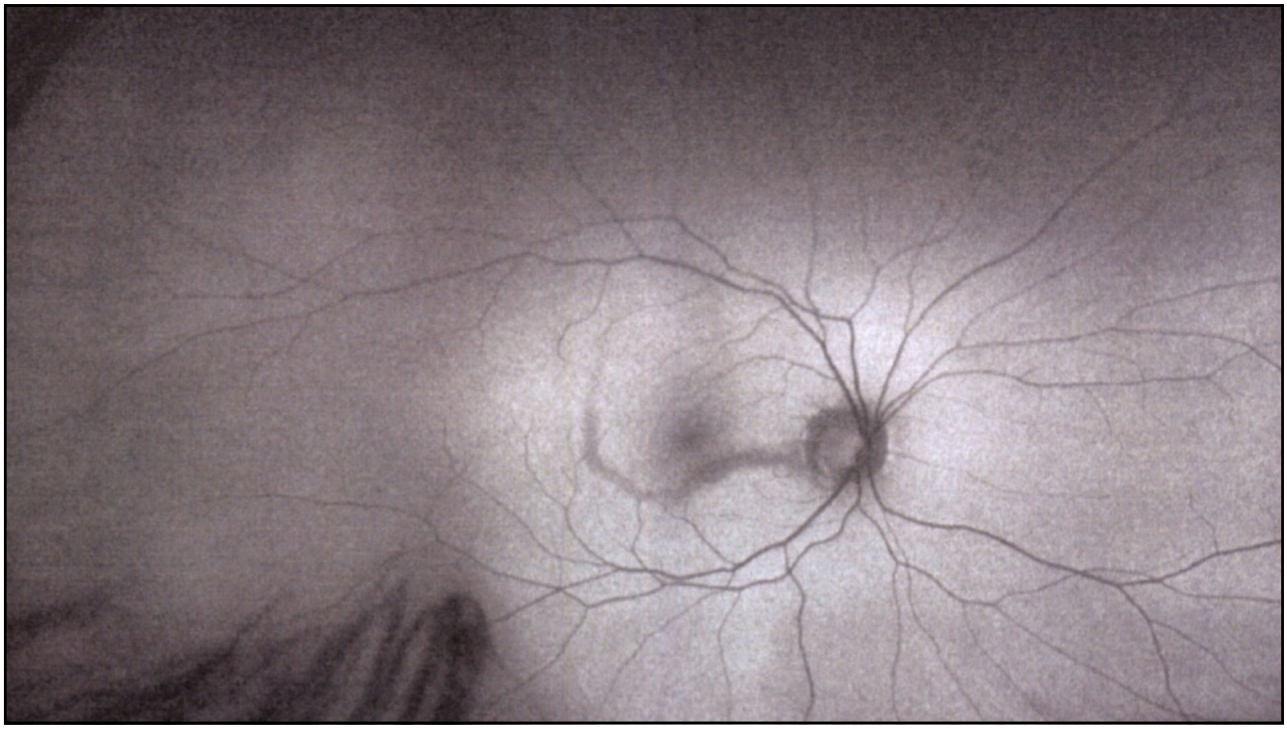
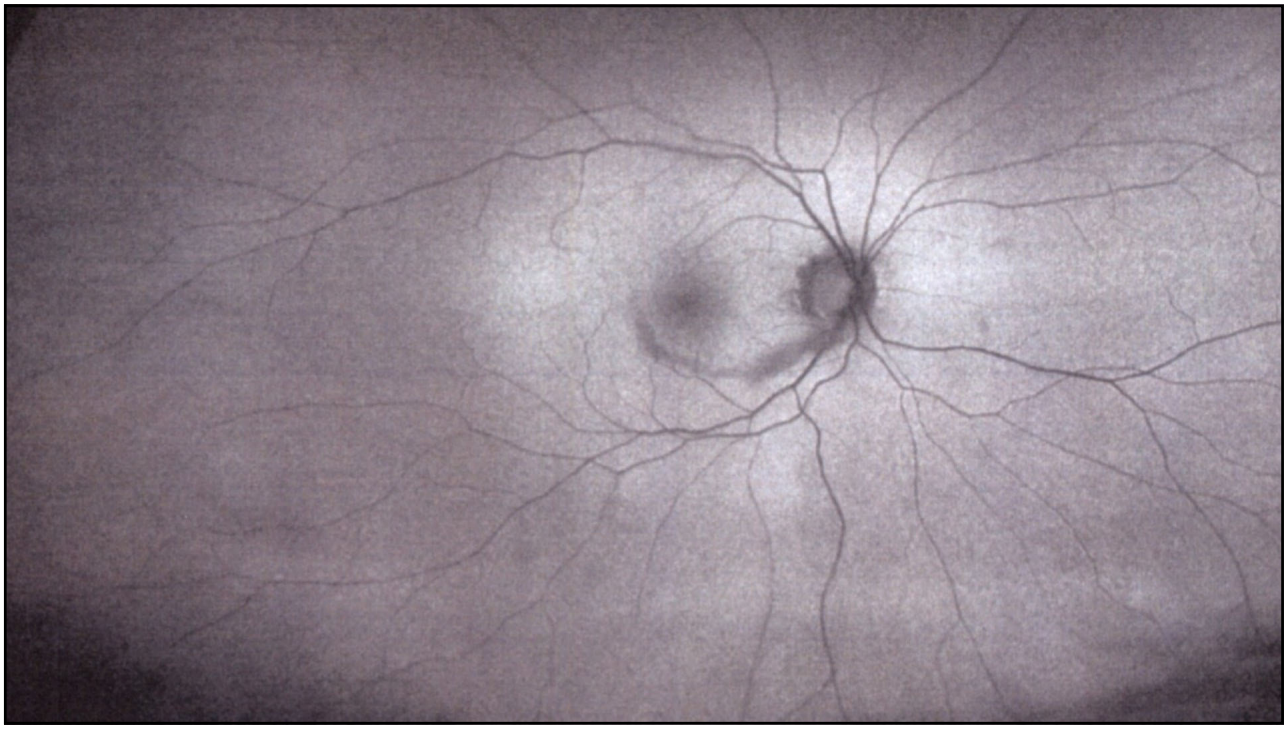
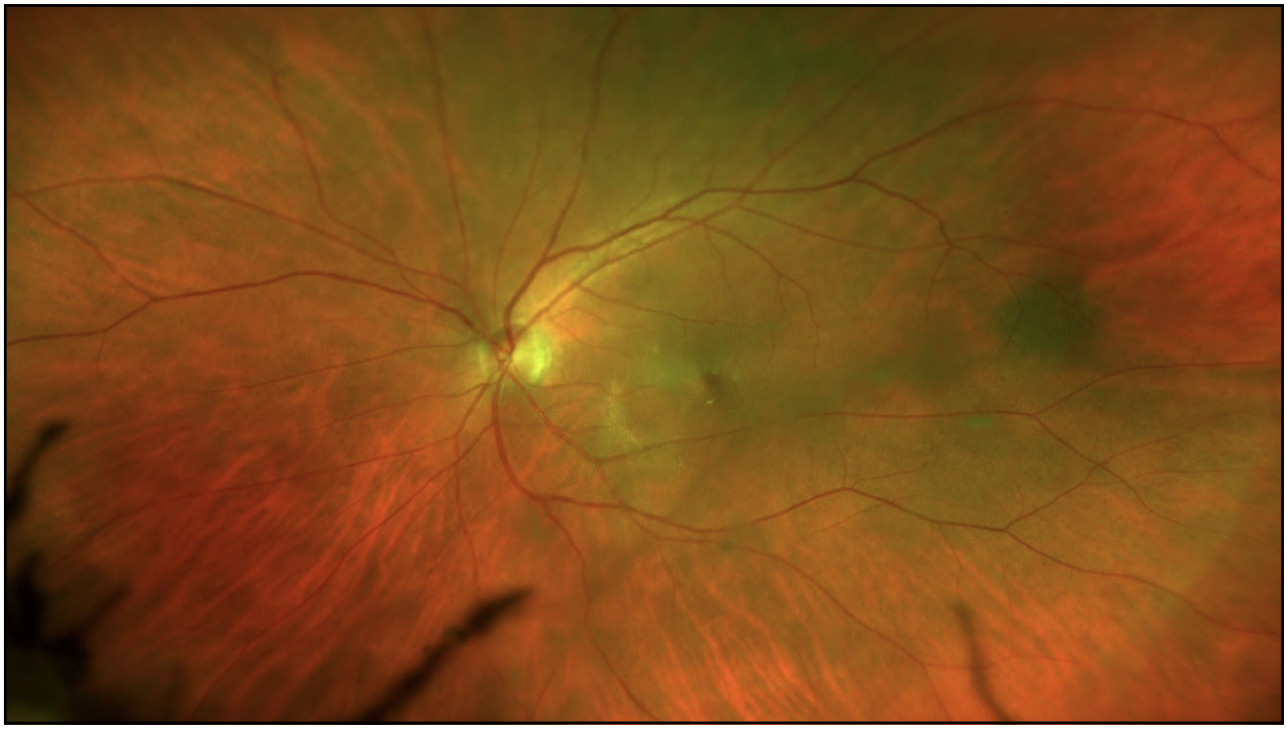
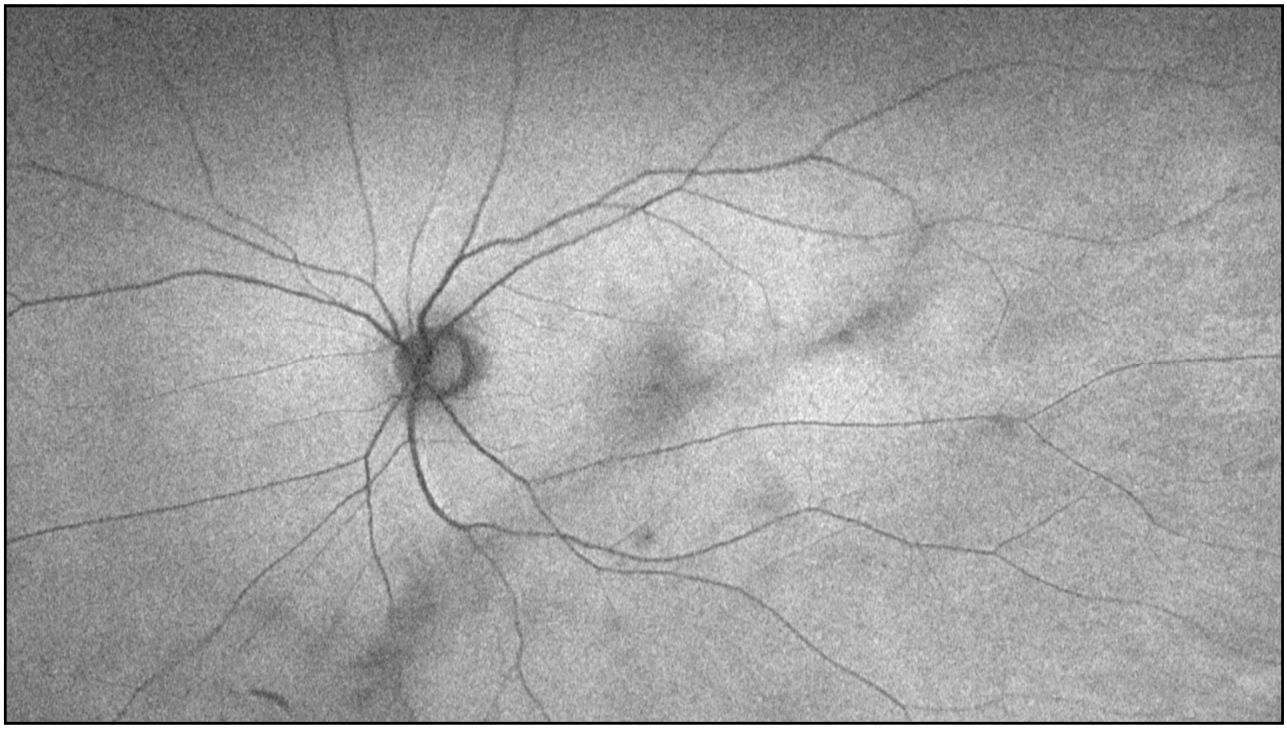

CLOUD & STRANDS
Karl Brasse

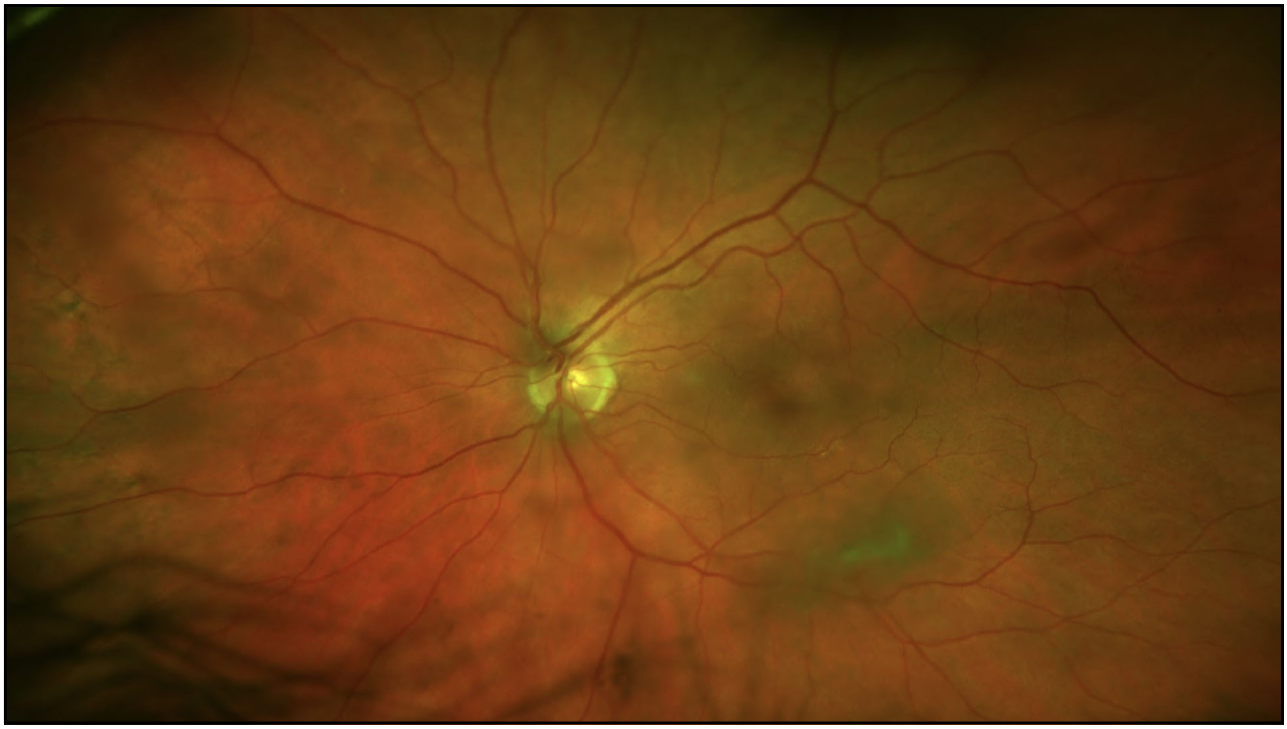

Karl Brasse

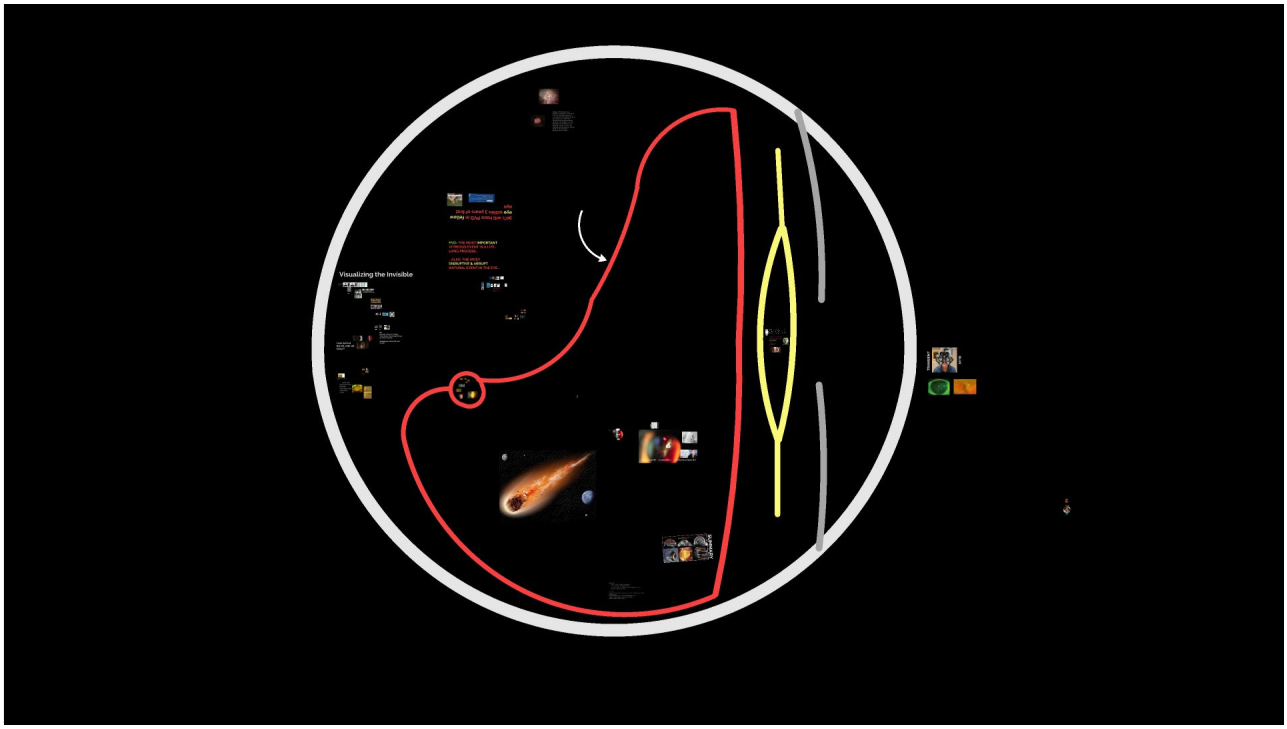


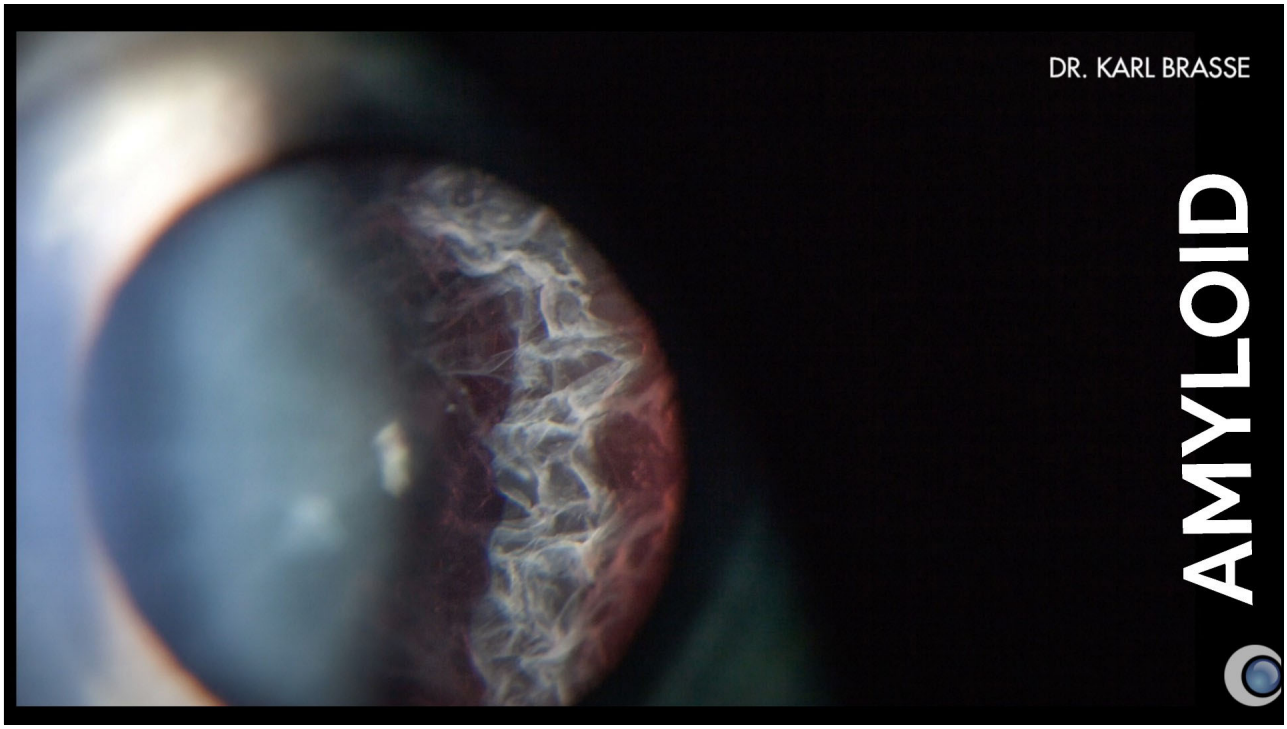


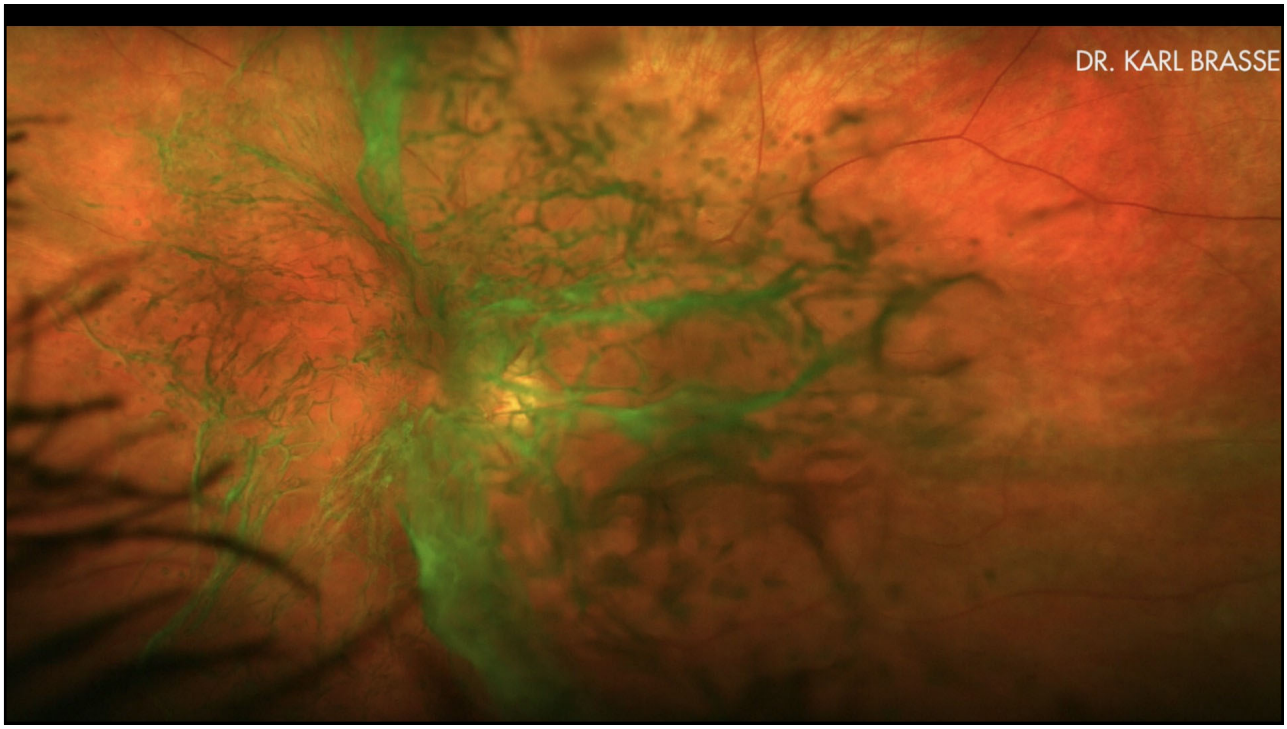


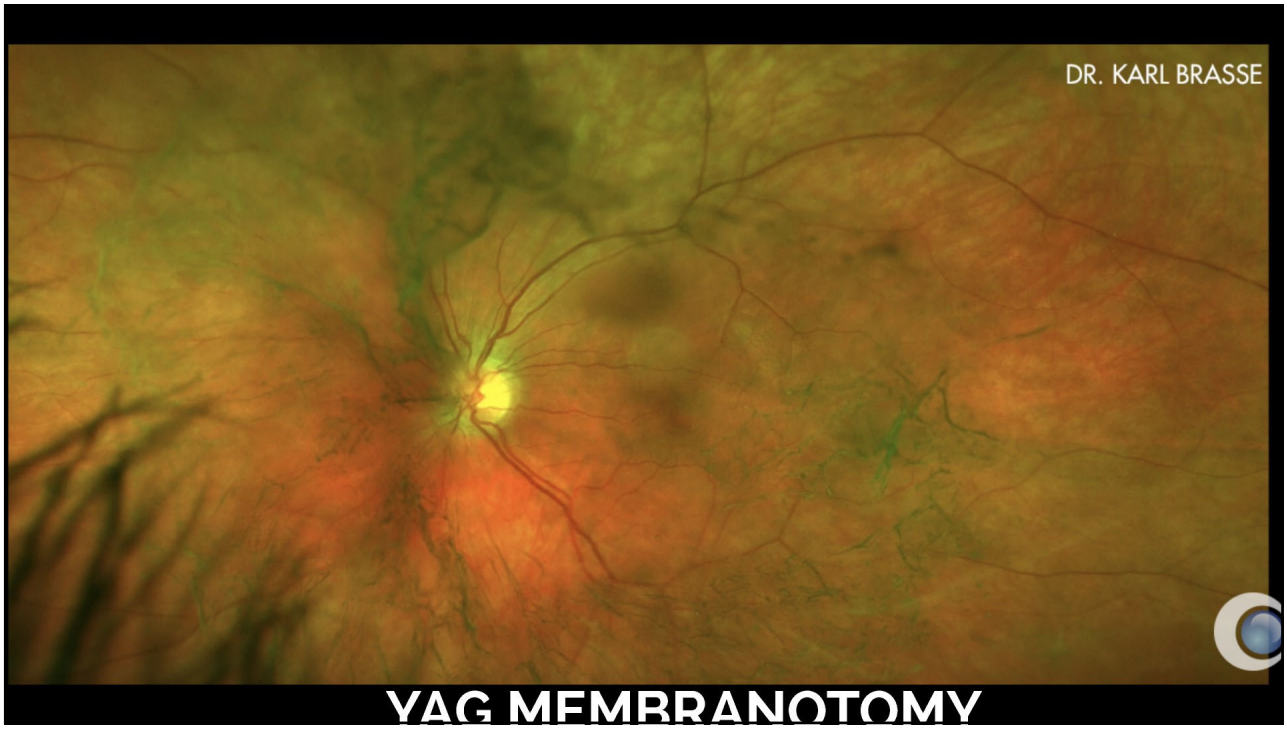





Visualizing the Invisible


DR. KARL BRASSE
AMYLOID


DR. KARL BRASSE

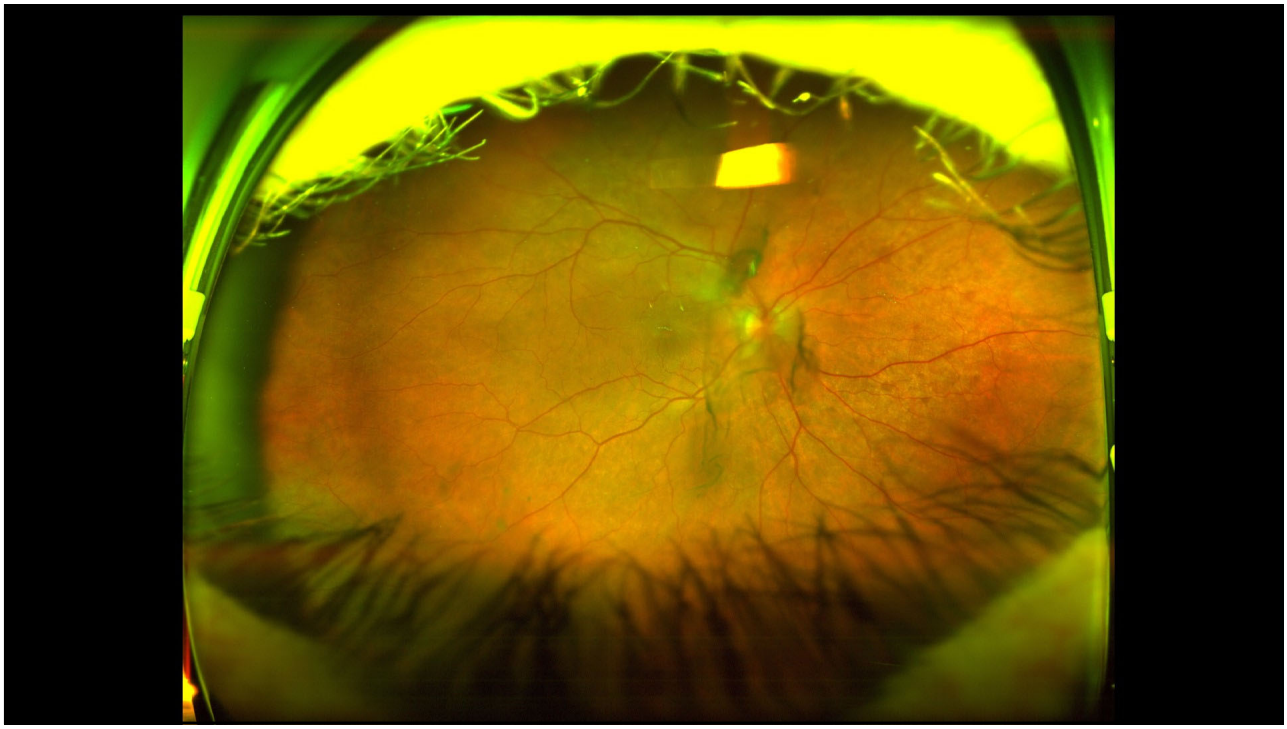

DR. KARL BRASSE
VAG MEMBRANOTOMY

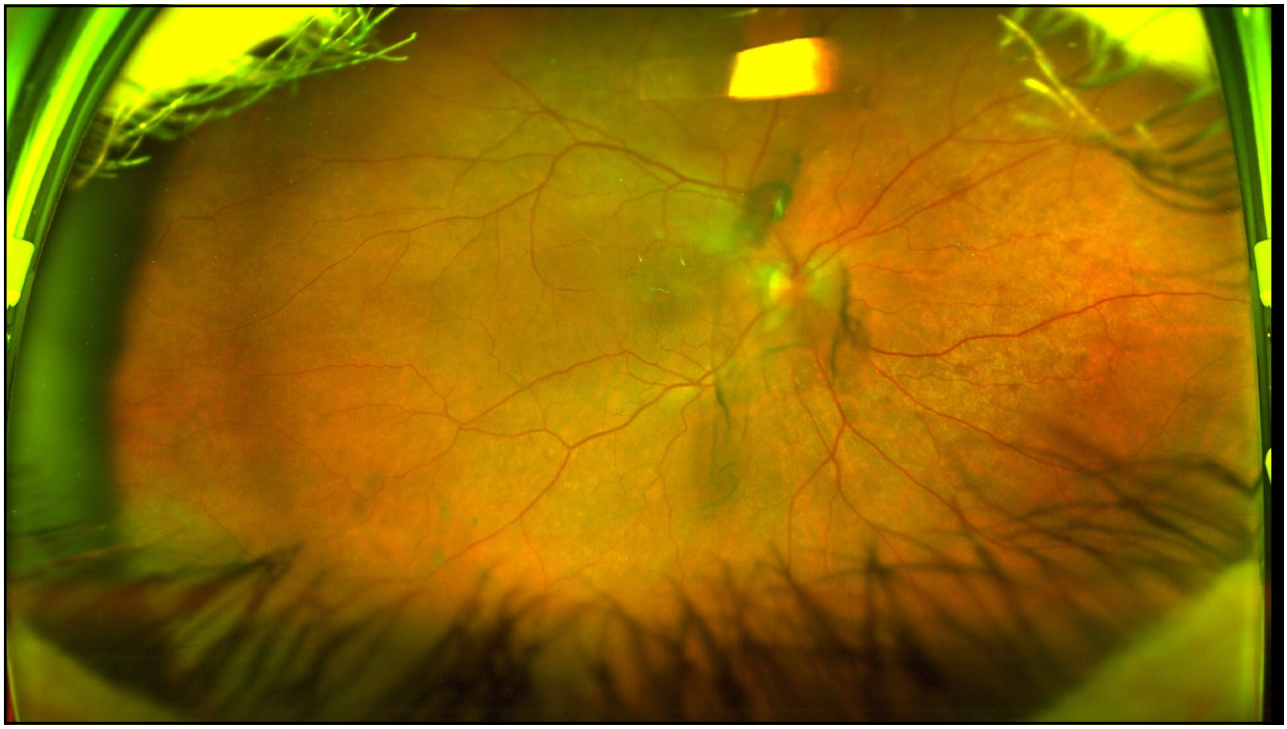
Laminar aggregations

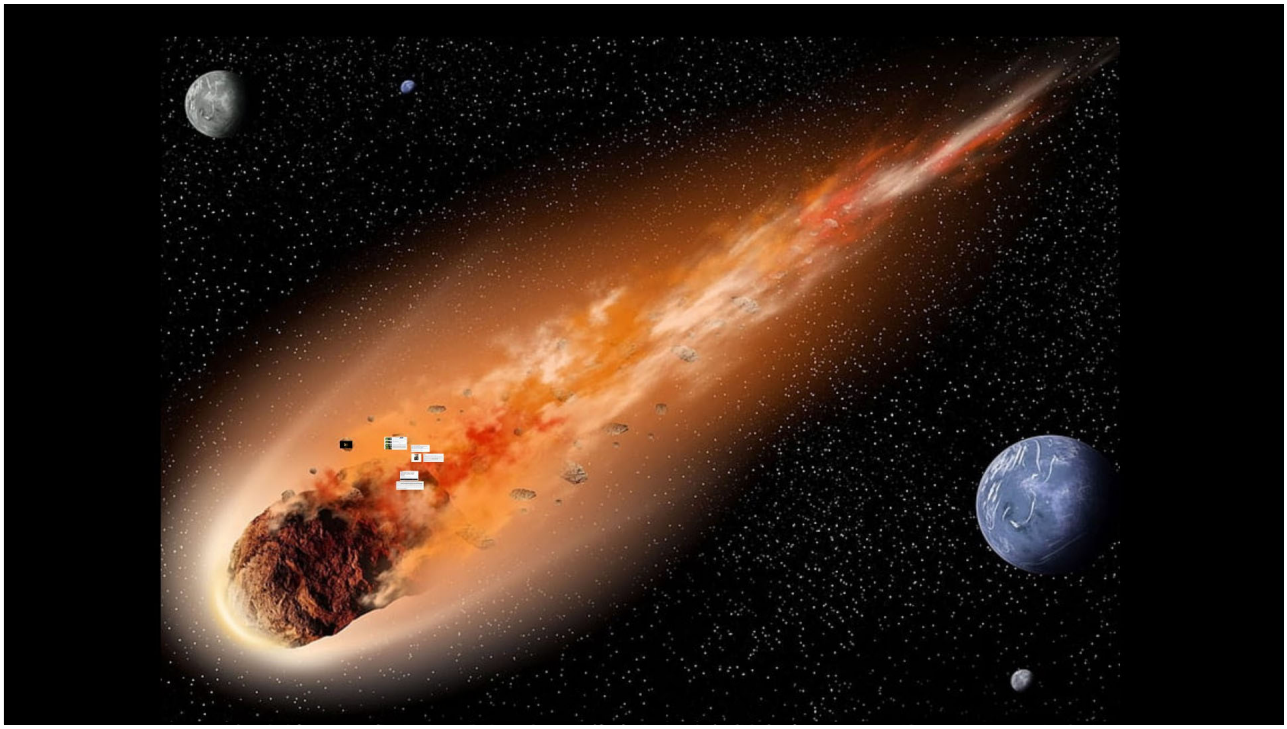
Furthermore there are special types of floaters. This sample shows a massive laminar aggregation of the rear membrane of the vitreous humor floating before the central part of the retina directly above the macula and massively disturbing the patient concerned. Only a vitrectomy could relieve this.

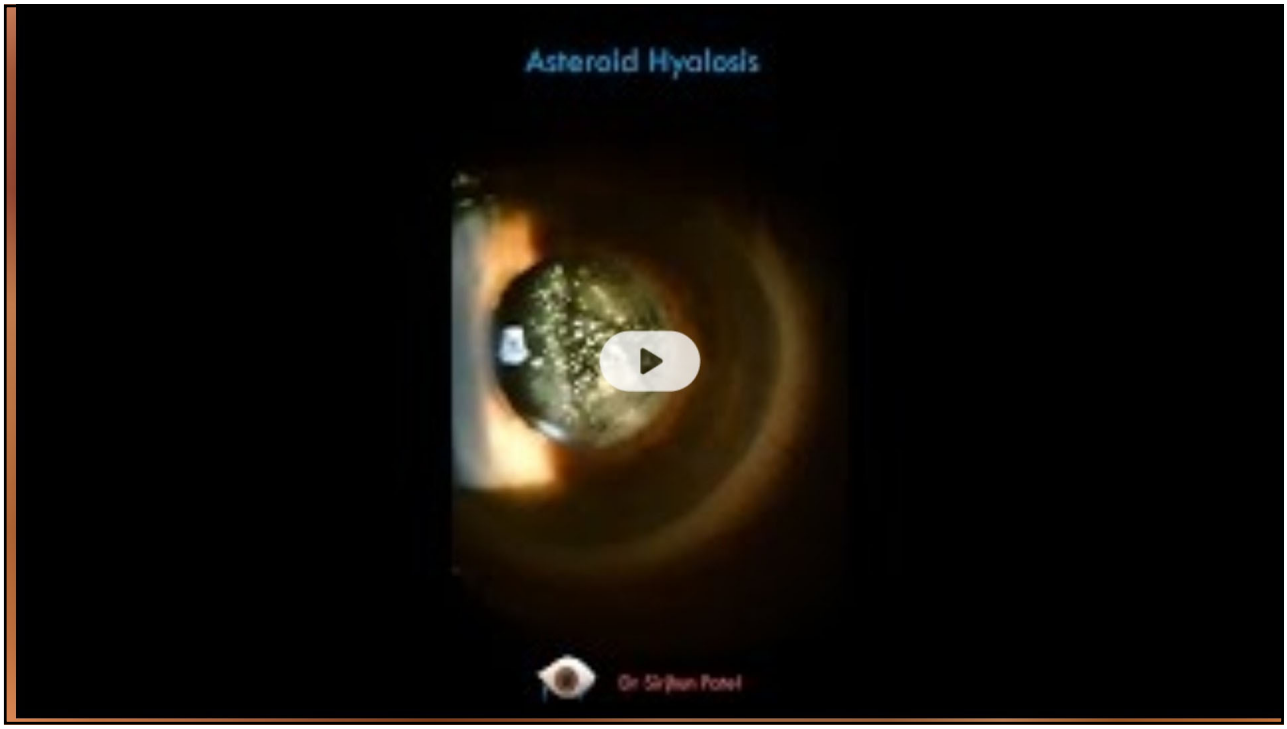
Before Vitectomy

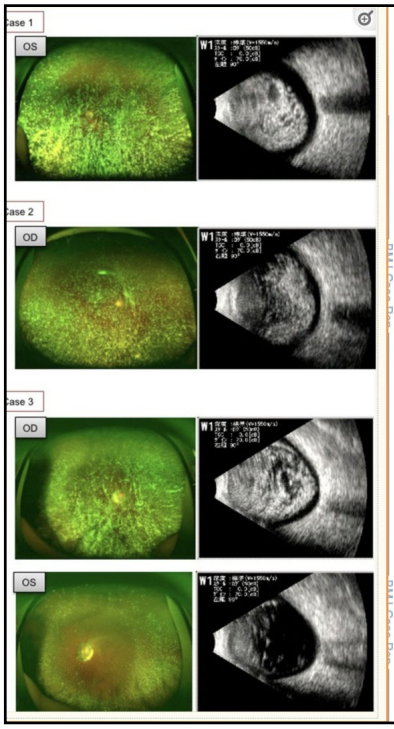
After Vitrectomy











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BMJ Case Re 2015; 2015: bcr2015211704.
Published online 2015 Dec 23. doi: 10.1136/bcr-2015-211704
PMCID: PMC4691868
PMID: 26698200

Case Report

Increased internal higher-order aberrations as a useful parameter for indication of vitrectomy in three asteroid hyalosis cases

Sho YokoY-ama,[1] Takashi Kojima,[2] Tatsushi Kag ,[1] and Kazuo Ichikawa[3]

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Abstract

Go to:

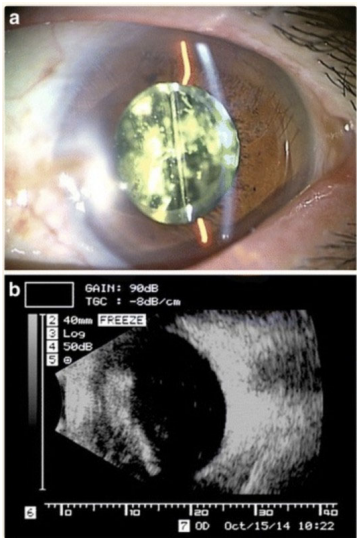
We report three asteroid hyalosis cases in which internal higher-order aberrations (HOAs) were improved concomitant with improved visual symptoms after vitrectomy. Cases 1 and 2 reported severe floaters and glare disability, although their visual acuities were fairly good. Case 3 showed poor visual acuity since this patient also suffered from mild macular degeneration. For these three asteroid hyalosis cases, we were unsure if treatment with vitrectomy could improve visual symptoms. Therefore, we measured internal HOAs with an aberrometer, and found that the internal HOA values in these cases were high. We suspected that internal high HOAs values were associated with visual disturbance, and performed vitrectomy. After the vitrectomy, the internal HOA values in these three asteroid hyalosis cases markedly decreased, and visual symptoms improved. These observations suggested that measurement of internal HOAs may be useful to determine the indication for vitrectomy.

Case report | Ogen Access | Published: 15 MaY- 2017

Case of asteroid hyalosis that developed severely reduced vision after cataract surgery

RY-osuke Ochi, Bumgei Sato, Seita Morishita, Yukihiro Imagawa, Masashi Mimura, Masanori Fukumoto, Takaki Sato, Takatoshi KobaY-ashi, TeruY-o Kida & Tsunehiko Ikeda B

BMC Og hthalmology 17, Article number: 68 (2017) | Cite this article



Ocular findings in a patient with asteroid hyalosis **(AH)** after successful cataract surgery. The asteroid bodies (ABs) appear to be concentrated in the anterior vitreous cavity of the left eye **(a),** and an ultrasonic B-mode image shows a shadow that appears to be a cluster of asteroid bodies (ABs) in the anterior vitreous cavity **(b)**

Abstract

Background: To report our findings in a patient with asteroid hyalosis (AH) who had a severe reduction of his visual acuity following cataract surgery. The vision was improved by vitreous surgery.

Case presentation: The patient was an 81-year-old man. Following cataract surgery on his left eye, his decimal best-corrected visual acuity (BCVA) was markedly reduced from 0.2 to 0.02. A large number of asteroid bodies (ABs) was observed to be concentrated on the posterior surface of the implanted intraocular lens. Ultrasound B-mode images showed turbidity of the vitreous that was denser in the anterior vitreous where the ABs were concentrated. During vitrectomy, the ABs were observed to be concentrated in the anterior vitreous cavity, and a complete posterior vitreous detachment (PVD) was present. After vitrectomy successfully removed the ABs, the visibility of the fundus improved and the BCVA recovered to 1.0.

Conclusion: We suggest that the visual impairment after the cataract surgery was due to the concentrated ABs in the anterior vitreous cavity. The clustering of the ABs in the anterior vitreous cavity was most likely caused by the PVD that developed during the cataract surgery.

Keywords: Asteroid hyalosis, Cataract surgery, Vitreous surgery, Posterior vitreous detachment

OPEN ACCESS

ARVO Annual Meeting Abstract | July 2019

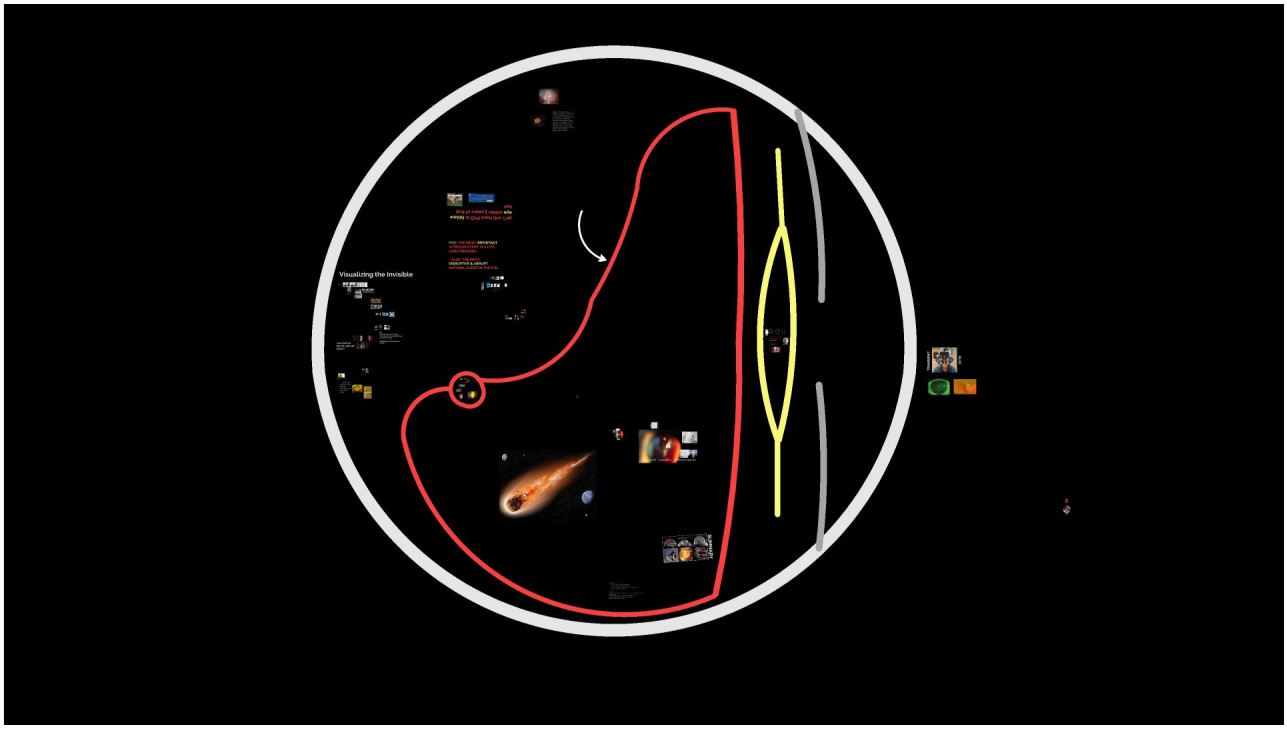
Acute decreased vision in asteroid hyalosis due to posterior vitreous separation

Elizabeth Marlow; Mikel Mikhail; Lisa Faia; Bruce Garretson

+ Author Affiliations & Notes

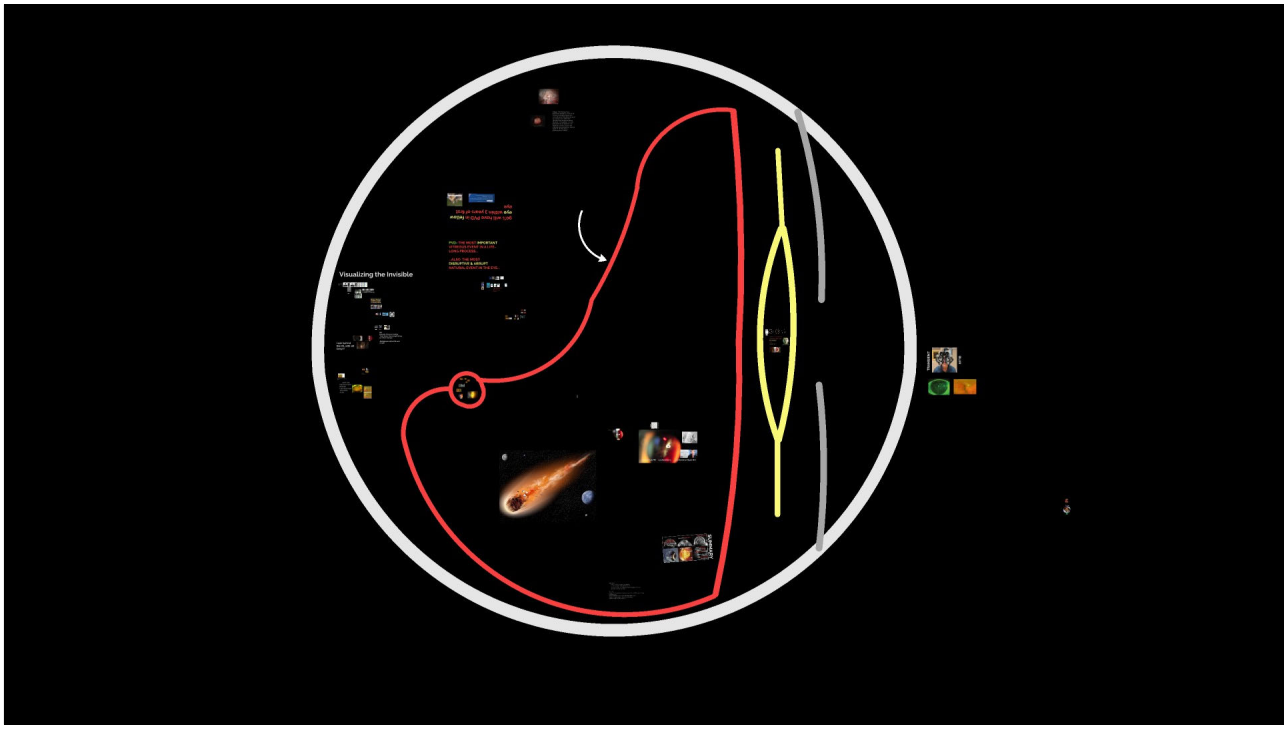
Investigative Ophthalmology & Visual Science July 2019, Vol.60, 5782. doi:

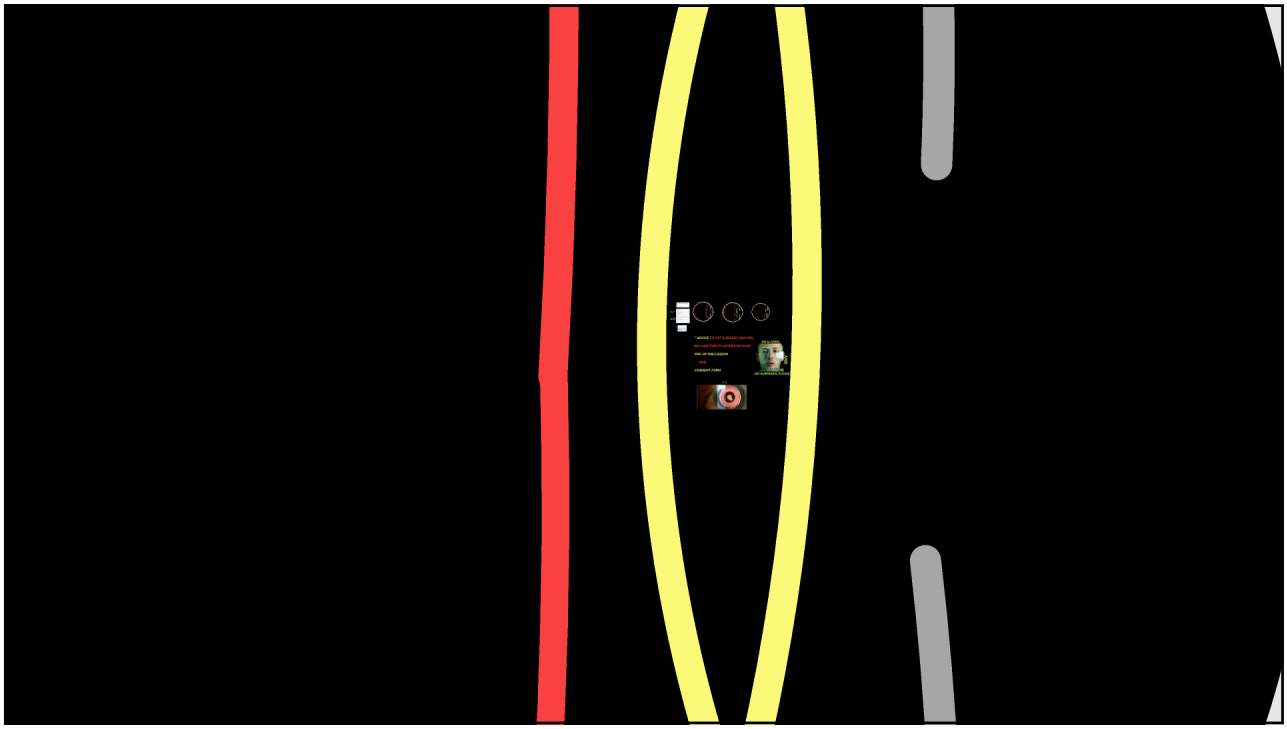
Conclusions: Although AH is typically associated with minimal subjective complaints, posterior vitreous separation appears to concentrate asteroid bodies into the anterior vitreous, thereby increasing their density and causing a marked visual impairment. Our case series demonstrates that PPV is effective at reversing vision loss caused by progressive posterior vitreous separation in eyes with AH, including cases with vitreoschisis.

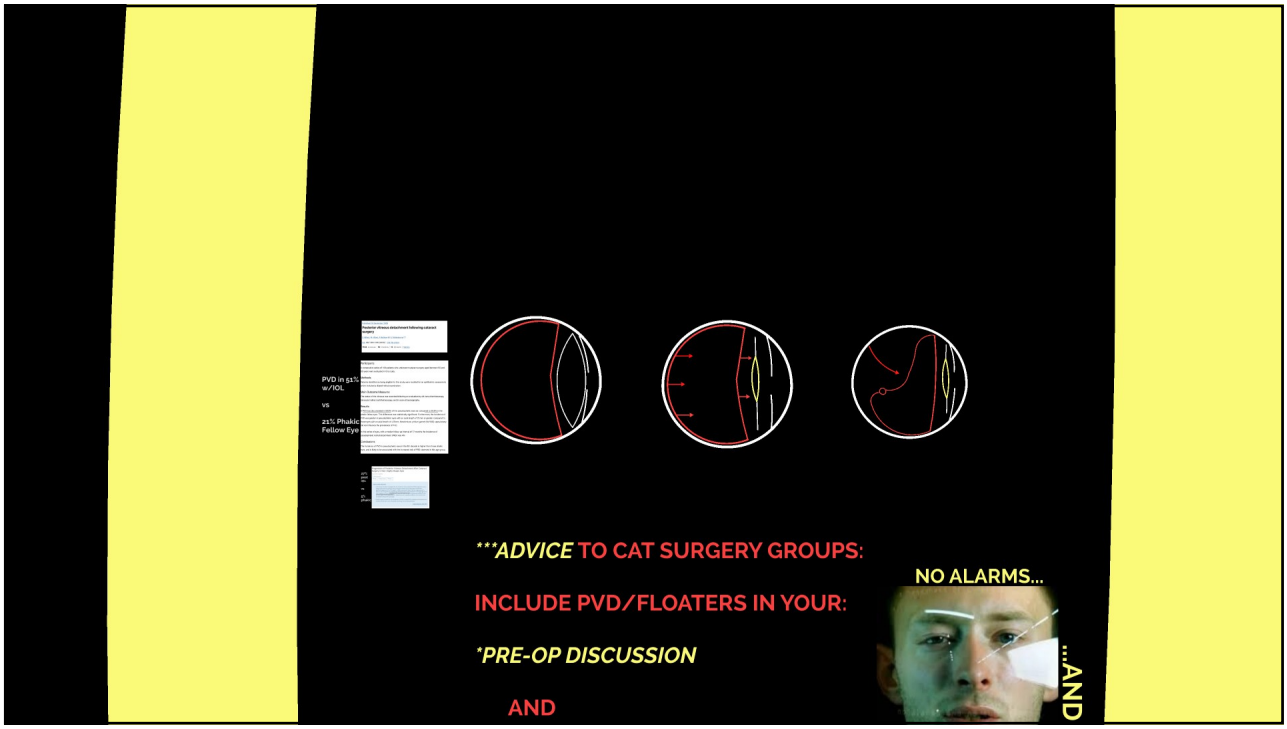


PVD= THE MOST IMPORTANT VITREOUS EVENT IN A LIFE LONG PROCESS...

...ALSO THE MOST DISRUPTIVE & ABRUPT NATURAL EVENT IN THE EYE...


Visualizing the Invisible





Published: 05 September 2008

Posterior vitreous detachment following cataract surgery

D Hilford, M Hilford, A Mathew & P J Polkinghorne EI

Eye 23, 1388-1392 (2009) | Cite this article

PVD in 51% w/IOL

vs

21% Phakic Fellow Eye

Participants

A consecutive series of 149 patients who underwent cataract surgery aged between 50 and 60 years were evaluated in this study.

Methods

Patients identified as being eligible for this study were recalled for an ophthalmic assessment, which included a dilated retinal examination.

Main Outcome Measures

The status of the vitreous was recorded following an evaluation by slit-lamp biomicroscopy, binocular indirect ophthalmoscopy, and B-scan ultrasonography.

Results

A PVO was documented in 50.8% of the pseudophakic eyes as compared to 20.8% in the phakic fellow eyes. This difference was statistically significant. Furthermore, the incidence of PVO was greater in pseudophakic eyes with an axial length of 25mm or greater compared to those eyes with an axial lenath of <25 mm. Neodvmium: yttrium garnet (Nd:YAG} capsulotomy did not influence the prevalence of PVO.

In this series of eyes, with a median follow-up interval of 77 months the incidence of pseudophakic retinal detachment (PRO} was 4%

Conclusions

The incidence of PVO in pseudophakic eyes in the 6th decade is higher than those phakic eyes, and is likely to be associated with the increased risk of PRO observed in this age group.

27% post IOL

vs

5% phakic

Progression of Posterior Vitreous Detachment After Cataract Surgery in Non-Highly Myopic Eyes

Eye (London, England)

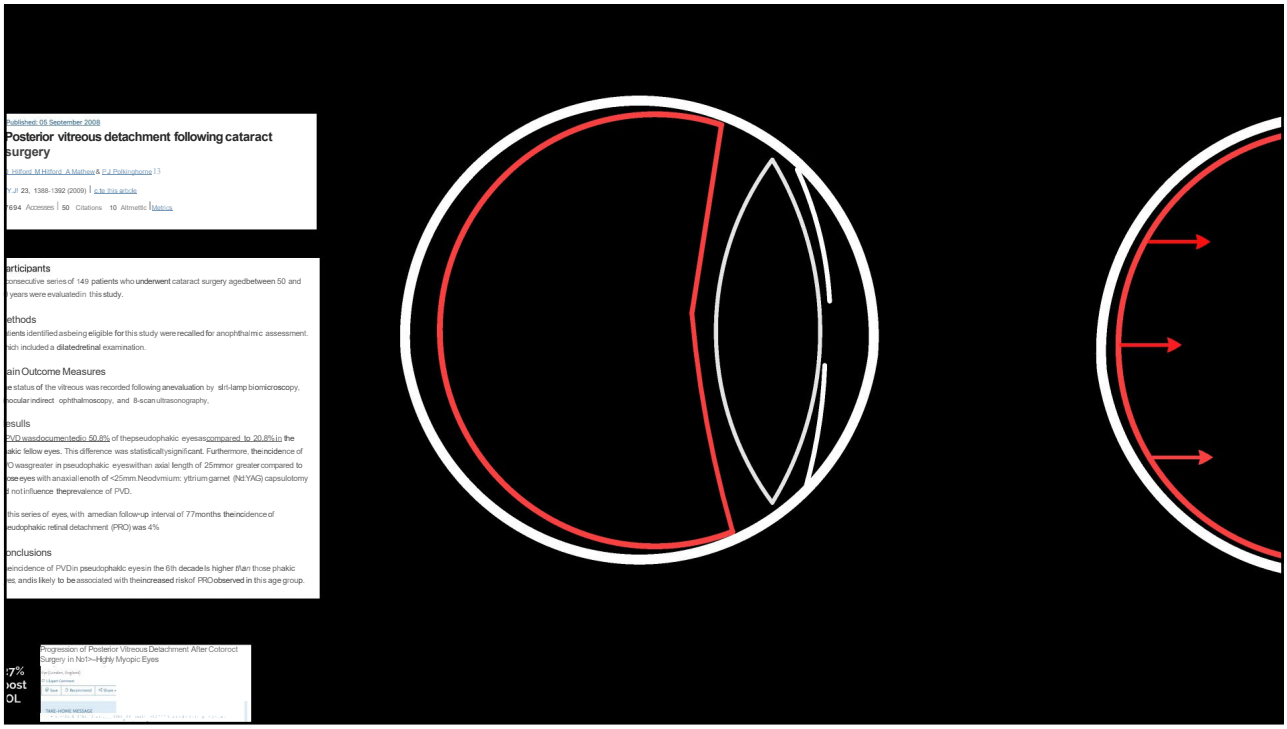
0 1 Expert Comment

f/1 Save :!J Recommend Share,..

TAKE-HOME MESSAGE

- In this study, the authors investigated the rate of posterior vitreous detachment (PVD) progression in non highly myopic eyes that underwent cataract extraction. Patients in the surgery group experienced a significant progression of the PVD stage (P =.0004) compared with those in the non-surgery group (P = .8773) at 1 year. Progression to complete stage 4 PVD occurred in 27.3% of patients in the surgery group and 5.2% of patients in the non-surgery group at 1 year; the hazard risk ratio of developing complete PVD was 5.9 times higher in the surgery group (P < .0001). There was no significant difference in the rate of retinal complications between the two groups.
- Cataract surgery increases the risk of progression of PVD to complete PVD, a development that patients and providers should note to ensure that proper monitoring and counseling take place.

- Zachary Bergman, MD, MPH


Published: 05 September 2008
Posterior vitreous detachment following cataract surgery
Hilford, M Hilford, A Mathew & P J Pollingthorne
Y J 23, 1388–1392 (2009)
694 Accesses | 50 Citations | 10 Altmetric | Metrics
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Progression of Posterior Vitreous Detachment After Cataract Surgery in Not>–Highly Myopic Eyes
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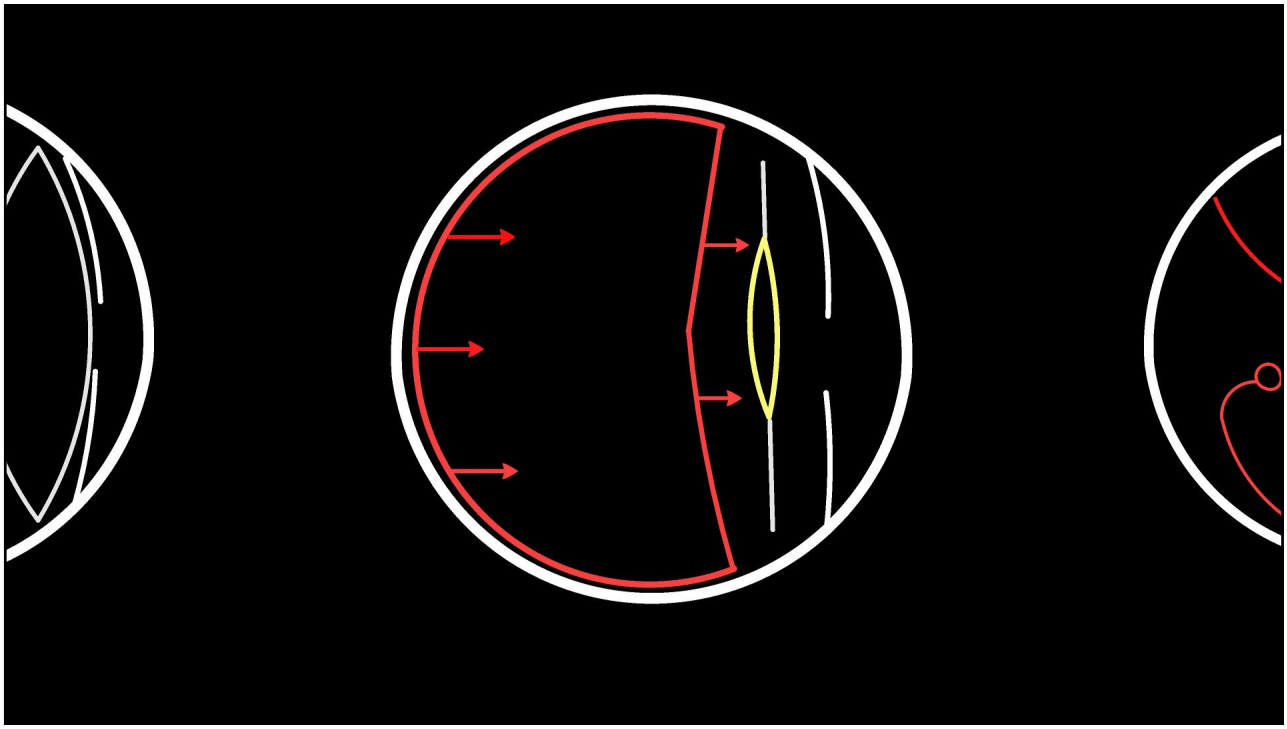
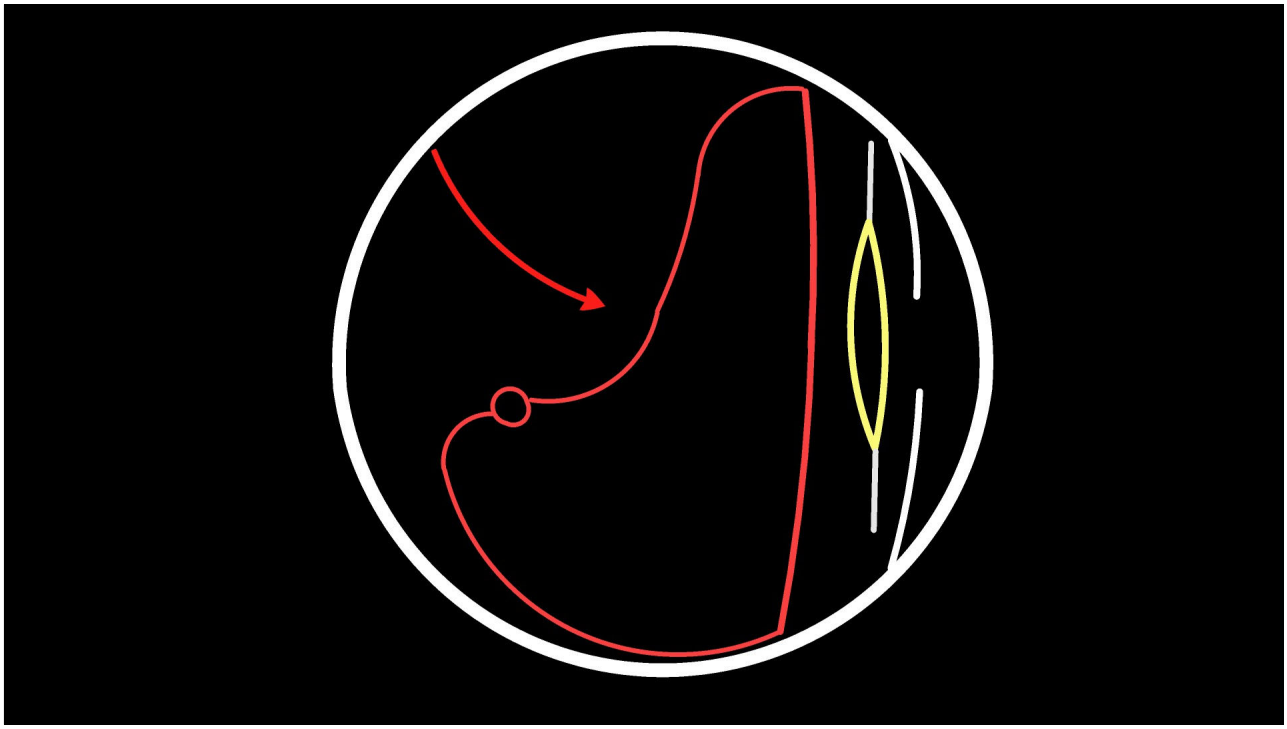
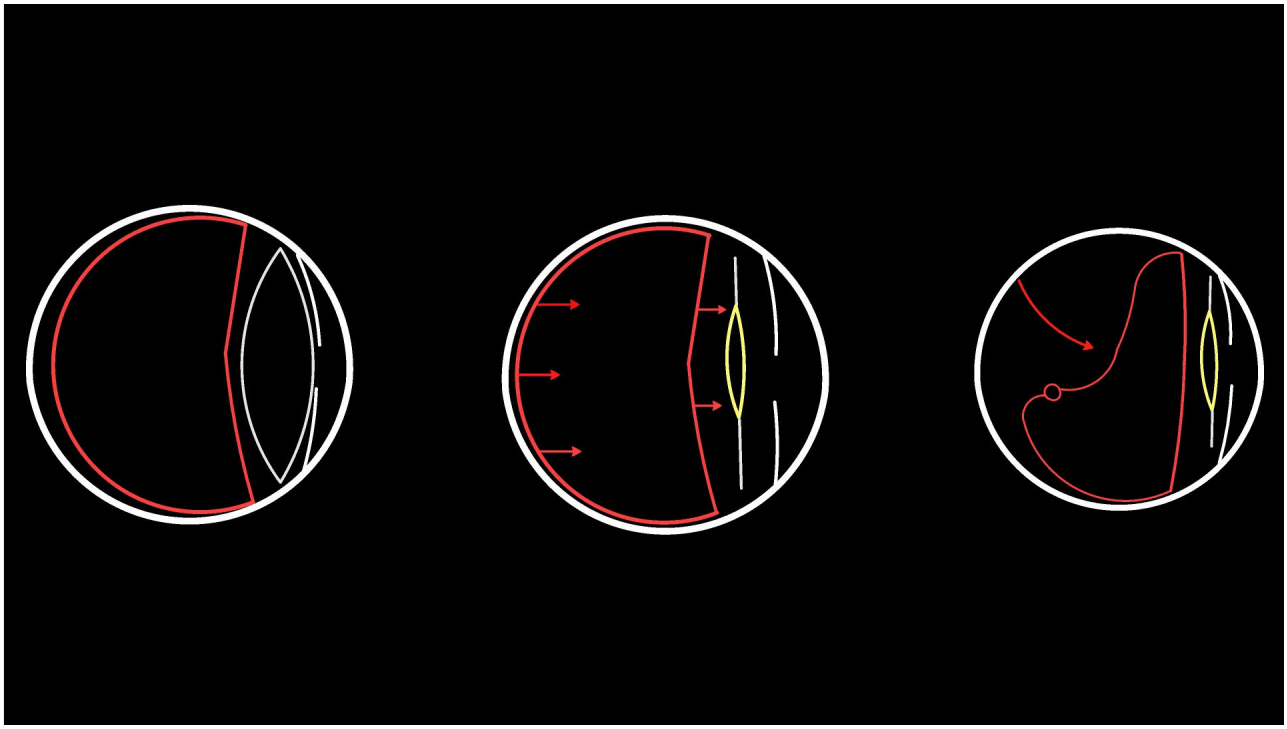






***ADVICE TO CAT SURGERY GROUPS:

INCLUDE PVD/FLOATERS IN YOUR:

*PRE-OP DISCUSSION

AND

*CONSENT FORM

NO ALARMS...

...AND

...NO SURPRISES, PLEASE

YOUR THOUGHTS ON...

PVD AND CAT SURG?

"I would probably say if it's discussed *beforehand*, it could be a "side effect" of surgery. If it's not discussed prior to, then it is viewed as a complication of surgery by the patient." -Jason Ellen, OD

"We do discuss floaters in our Preop discussions. I'm not sure if it is in our consents. In some patients that have floaters Preop who are getting an IC 8 lens I do a LFT prior to surgery. If I see it while I'm operating I talk to the patient about options after cataract surgery and LFT"-Karl Stonecipher, MD

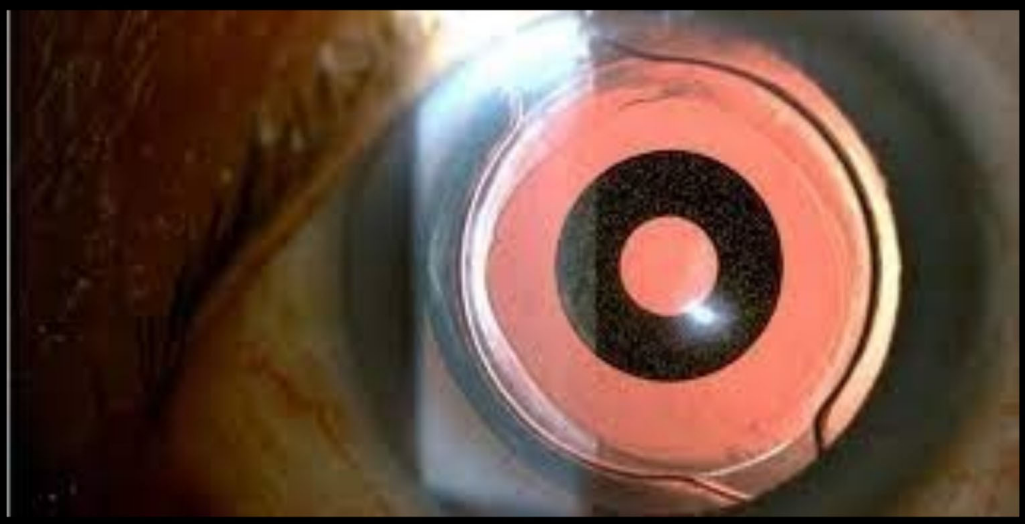
"I don't know if it's on our paperwork but it should be. I discuss this all the time with patients, especially if I see one. But either way, they will be getting one sooner once surgery is complete. It's the whole reason for the *1/500 RD* risk after surgery. "-Bill Plauche, MD

PRE-OP DISCUSSION

AND

CONSENTS?

IC 8



90% will have PVD in fellow eye within 3 years of first eye

ORIGINAL ARTICLE | VOLUME 111, ISSUE 9, P1705-1707, SEPTEMBER 2004

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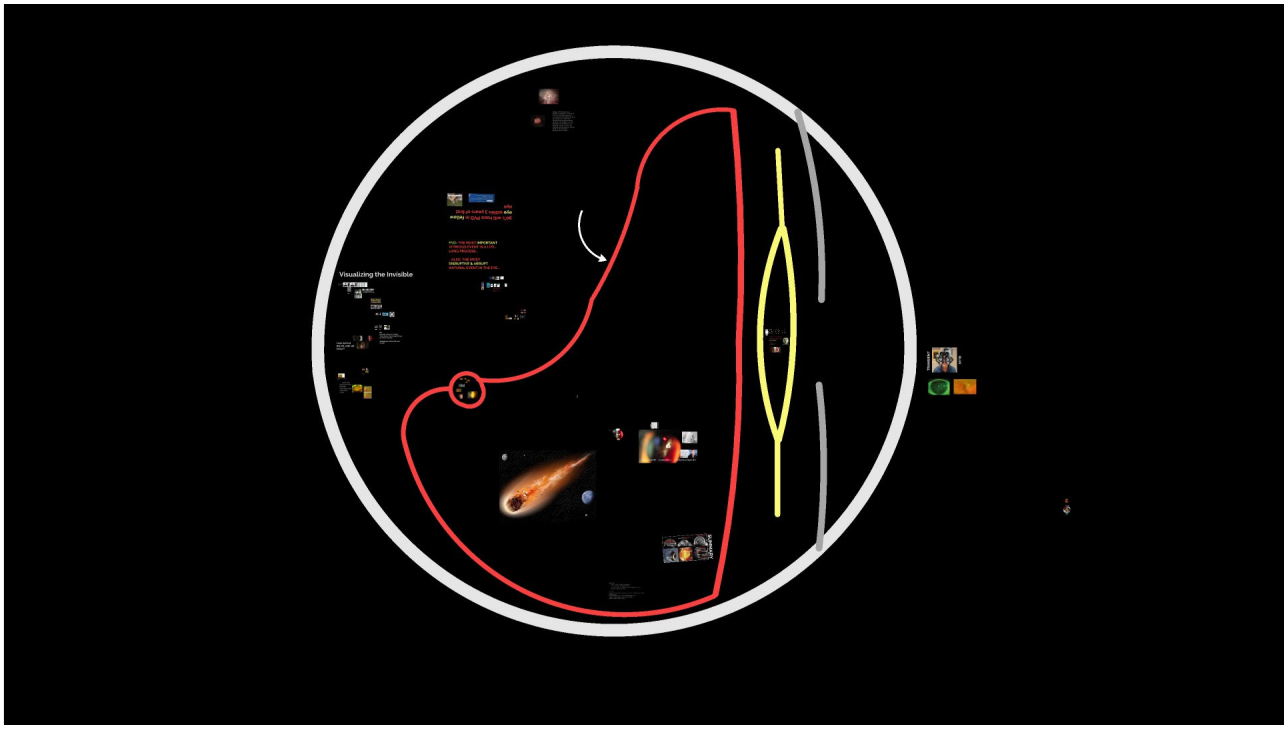
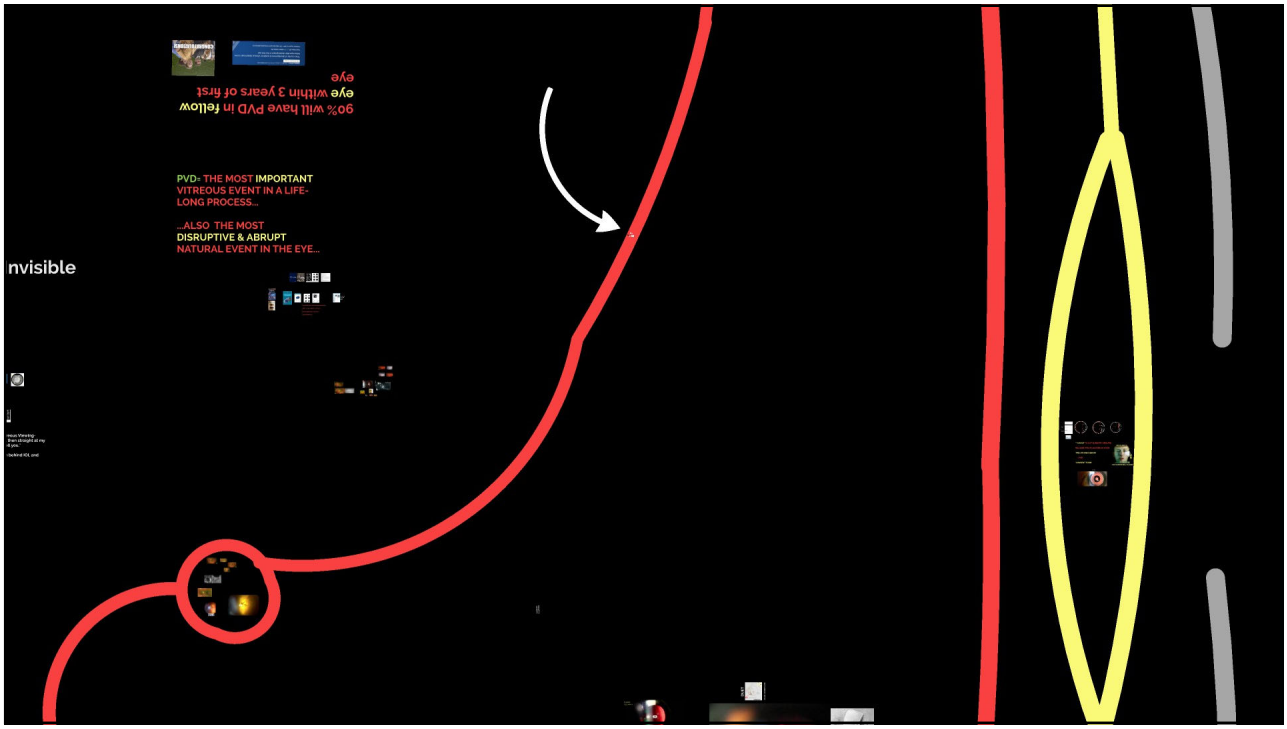
Time course of development of posterior vitreous detachment in the fellow eye after development in the first eye

Taiichi Hikichi, MD • Akitoshi Yoshida, MD

Published: August 19, 2004 • DOI: https://doi.org/10.1016/j.ophtha.2004.02.015


Visualizing the Invisible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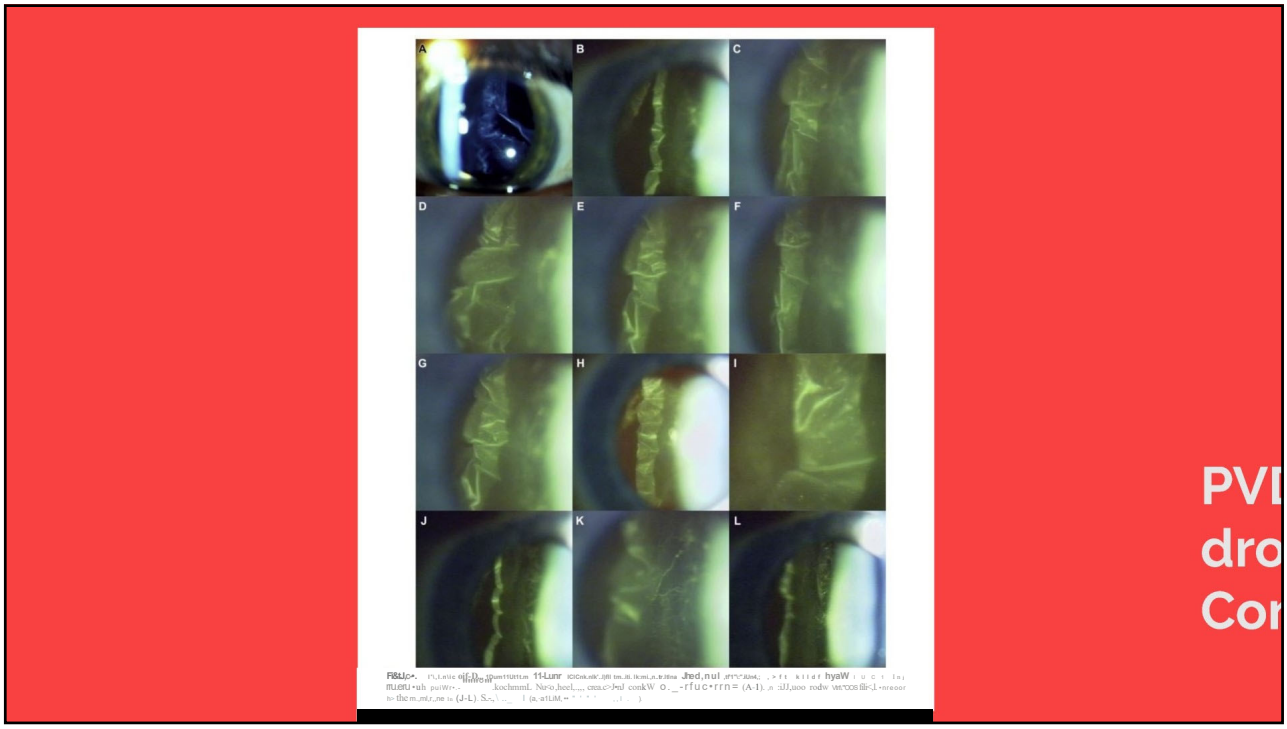

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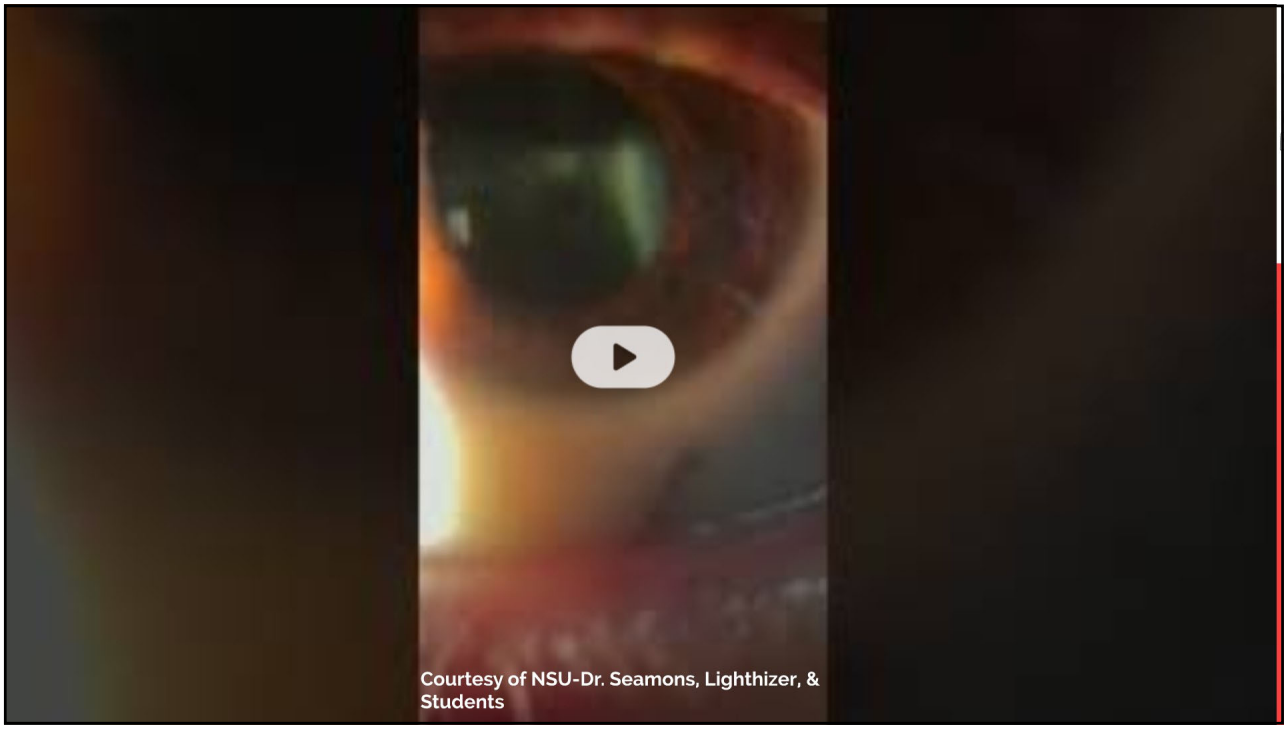

Degradation of C ntr st Sensitivity Fun tion Following Post rior Vitr ous D tachm nt

GIA ARLO A. GARCIA, MATI KHO EVI EN ET .P. YEE, JEA I G YE ..(U, JU TIN UY , AND J. EBAG

Abstract

PVD--> 53% drop in Contrast

VITRECTOMY -->43% IMPROVEMENT

Abstract

Purpose: To evaluate the effect of posterior vitreous detachment (PVD) on contrast sensitivity function (CSF) in previously normal eyes, with the hypothesis that PVD reduces CSF.

Design: Prospective observational case series.

Methods: At a single clinical practice 28 eyes were evaluated: 8 eyes of 8 adults (mean age 54.4 ± 10.1 years; range 39-68 years) with normal CSF documented by Freiburg Acuity Contrast Testing (Weber index: %W) who subsequently experienced PVD, as confirmed by ultrasonography and optical coherence tomography; 8 fellow eyes without PVD; and 12 control eyes: 9 eyes with PVD in patients who chose observation and 3 fellow eyes without PVD.

Results: At study entry there was no significant difference in CSF of fellow eye controls (mean 1.44 ± 0.27 %W; range 1.06-2.00 %W) and eyes that subsequently developed PVD (1.81 ± 0.61 %W; P = .146; range 1.01-2.69 %W). Following PVD there was a 52.5% reduction in CSF (2.76 ± 0.30 %W; P = .001; range 2.25-3.14 %W). CSF in the patients who chose limited vitrectomy (2.51 ± 0.46 %W; range 2.03-3.06 %W) was 41.8% worse than in the eyes with PVD of patients who chose observation (1.46 ± 0.21 %W; P = .001; range 1.08-1.87 %W). After vitrectomy, CSF improved by an average of 43.2%, normalizing in each case at 1 month (CSF 1.51 ± 0.28 %W; P = .001; range 1.14-2.00 %W), 3 months (1.38 ± 0.10 %W; P = .0002; range 1.28-1.51 %W), and 12 months (1.34 ± 0.34 %W; P = .0001; range 1.01-1.89 %W, n = 5) postoperatively, attaining the same CSF as the control fellow eyes (1.34 ± 0.20 %W; range 1.06-1.56 %W).

Conclusion: PVD is associated with significant reduction in CSF of previously normal eyes. This quantifiable negative impact on visual function can distinguish patients who are not significantly bothered by vitreous floaters from those with clinically significant symptoms.

PVD--> 52.5% Decreased Contrast Sensitivity

Why? Prob b/c they are looking through a 110um sheet now. [Sebag value]

Retinal Disorders | Published: 22 Agril 2020

Impact of posterior vitreous detachment on contrast sensitivity in patients with multifocal intraocular lens

Fukutaro ManoB, Ster:1hen A. LoBue, Ayako Eno, Kuo-Chung Chang & Tamiya Mano

Graefe's Archive for Clinical and Exg_erimental Og_hthalmology **258,** 1709-1716 (2020) | Cite this articl

395 Accesses | 2 Citations | Metrics

Abstract

Purpose

To investigate posterior vitreous detachment (PVD) and pars plana vitrectomy (PPV) effects on contrast sensitivity function (CSF) in patients with a multifocal intraocular lens (MfIOL).

Methods

This single-center prospective case-control study analyzed 27 patients with 43 consecutive eyes. Twenty patients with 36 consecutive eyes received MfIOL implantation with either ZLBoo or ZMBoo. CSF was measured as the area under the log contrast sensitivity function (AULCSF) in the presence and absence of PVD (PVD+ group and PVD- group, respectively). Seven eyes associated with a symptomatic PVD and severe visual dissatisfaction after MfIOL implantation underwent PPV (symptomatic PVD+ group). CSF was measured prior to and after PPV.

Results

The mean AULCSF was significantly lower in the PVD+ group (1.5 ± 0.1) versus the PVD group (1.7 ± 0.1, $p < 0.0001$). Major complaints in the symptomatic PVD+ group included floaters ($n = 2$) and blurry vision ($n = 5$). The preoperative AULCSF (1.4 ± 0.1) was significantly lower in the symptomatic PVD+ group versus the PVD- group ($p < 0.0001$) andPVD+ group ($p = 0.02$). The preoperative AULCSF in the symptomatic PVD+ group was significantly improved after PPV (1.4 vs. 1.7, respectively, $p = 0.002$).

Conclusions

PVD significantly decreased CSF in patients with MfIOL. Patients with symptomatic PVD exhibited the greatest decrease in CSF, which was significantly improved after PPV. Measurement of CSF and careful assessment of PVD may be useful in determining the appropriateness of surgical intervention for improving visual performance and satisfaction in MfIOL patients with symptomatic PVD.

MFIOL
+
PVD=

+ Vitreous Treatment=

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ORIGINAL ARTICLES I VOLUME 244, P196-204, DECEMBER 2022 Download Full Issue

Vitrectomy Improves Contrast Sensitivity in Multifocal Pseudophakia With Vision Degrading Myodesopsia

Justin H. Nguyen • Kenneth M.P. Yee • Jeannie Nguyen-Cuu • Jonathan Mamou • J. Sebag *fe.*

Published: May 10, 2022 • DOI: https://doi.org/10.1016/j.ajo.2022.05.003 • Check for updates

METHODS

A total o f 9 y e s of 180 patients (55 MFIOL, 60 monofocal intraocular lenses [MIOL], 65 phakic) with symptomatic vitreous opacities were enrolled. Vitreous structure was assessed with quantitative ultrasonography (QUS). Vision was evaluated with visual acuity and CSF measurements.

RESULTS

Vitreous echodensity was the same in all lens cohorts, yet CSF was worse in MFIOL eyes *(P* < .001). In 86 patients who elected vitrectomy, there was 68% greater vitreous echodensity and 31% worse CSF than in observation controls *(P* < .0001 for each). Preoperatively, CSF was 25% worse in MFIOL than in MIOL *(P* = .014). Postoperatively, vitreous echodensity decreased by 55%, 51%, and 52%, whereas CSF improved by 37% 48% in and 43% in MFIOL, MIOL, and phakic eyes, respectively *(P* < .0001 for each). NEI Visual Function Questionnaire analyses showed improved visual well-being.

CONCLUSIONS

Patients with vision degrading myodesopsia who elected vitrectomy had greater vitreous echodensity and worse CSF than controls, but no other differences in age, sex, or myopia. MFIOL eyes had worse CSF than MIOL and phakic eyes, very possibly due to combined effects of the MFIOL and vitreous opacification. Limited vitrectomy reduced vitreous echodensity and improved CSF in all eyes. All patients with CSF-degrading vitreous opacities benefited from limited vitrectomy, including those with MFIOL. As MFIOL eyes ha provement in CSF, patients with MFIOL and vision degrading myodesopsia merit consideration of vitrectomy.

Small-Gauge Pars Plana Vitrectomy for the Management of Svmotomatic Posterior Vitreous Detachment after Phacoemulsification and Multifocal lntraocular Lens Implantation: A Pilot Study from the Pan-American Collaborative Retina Study Group

Rodrigo M. Navarro,[1] Leonardo M. Machado,[2] Ossires Maia, Jr.,[1] Lihteh Wu,[3] Michel E. Farah,[2] Octaviano Magalhaes, Jr.,[2] J. Fernando Arevalo,[4] and Mauricio Maia[1,2].

Abstract Go to:►

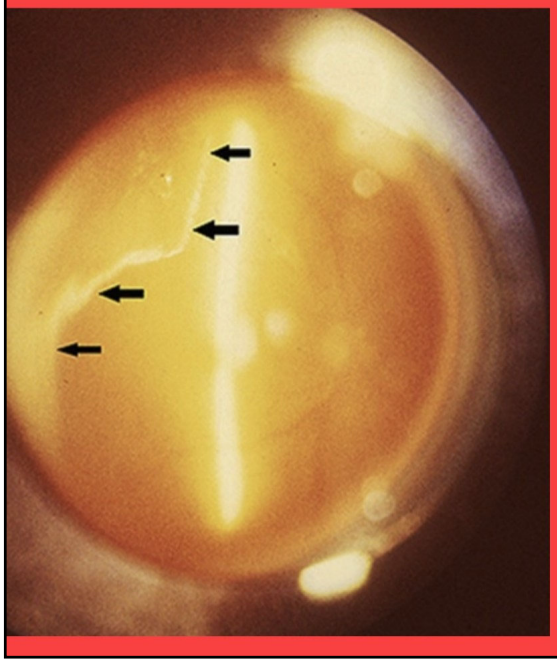
Purpose. To determine the efficacy of 23-gauge pars plana vitrectomy (PPV) for symptomatic posterior vitreous detachment (PVD) on visual acuity (VA) and quality after multifocal intraocular lenses (IOLs). *Methods.* In this prospective case series, patients who developed symptomatic PVD and were uot satisfied with visual quality due to floaters and_halos after multifocal IOL im lantation underwent PPV. Examinations included LogNlAA uncorrected visual acuity (OCVA), intraocular pressure, biomicroscopy, and indirect ophthalmoscopy at baseline and 1, 7, 30, and 180 days postoperatively. Ultrasonography and aberrometry were performed. The Visual Functioning Questionnaire 25 (VFQ-25) was administered preoperatively and at 30 days postoperatively. Both the postoperative UCVA and questionnaire results were compared to preoperative findings using the Wilcoxon test. *Results.* Sixteen e_yes of 8 patients were included. VA significantly improved from 0.17 to 0.09 postoperatively (P = 0.017). All atients re orted improvement of halos, glare, and floaters. VFQ-25 scores significantly improved in general vision (P = 0.023), near activities *(P* = 0.043), distance activities (P = 0.041), mental health (P = 0.011), role difficulties (P = 0.042), and driving (P = 0.016). *Conclusion.* PPV may increase UCVA and quality of vision in patients with bilateral multifocal IOLs and symptomatic PVD. Larger studies are advised.

ALL REPORTED ...

BETTER

TAKE-HOME: DON'T MISS THIS!

There's evidence that *vitreous treatments* may be the answer to some MFIOL FAILURES...



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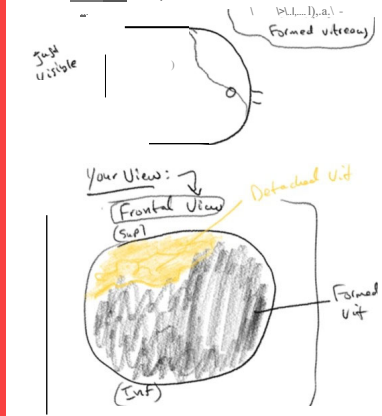
Formed vitreous
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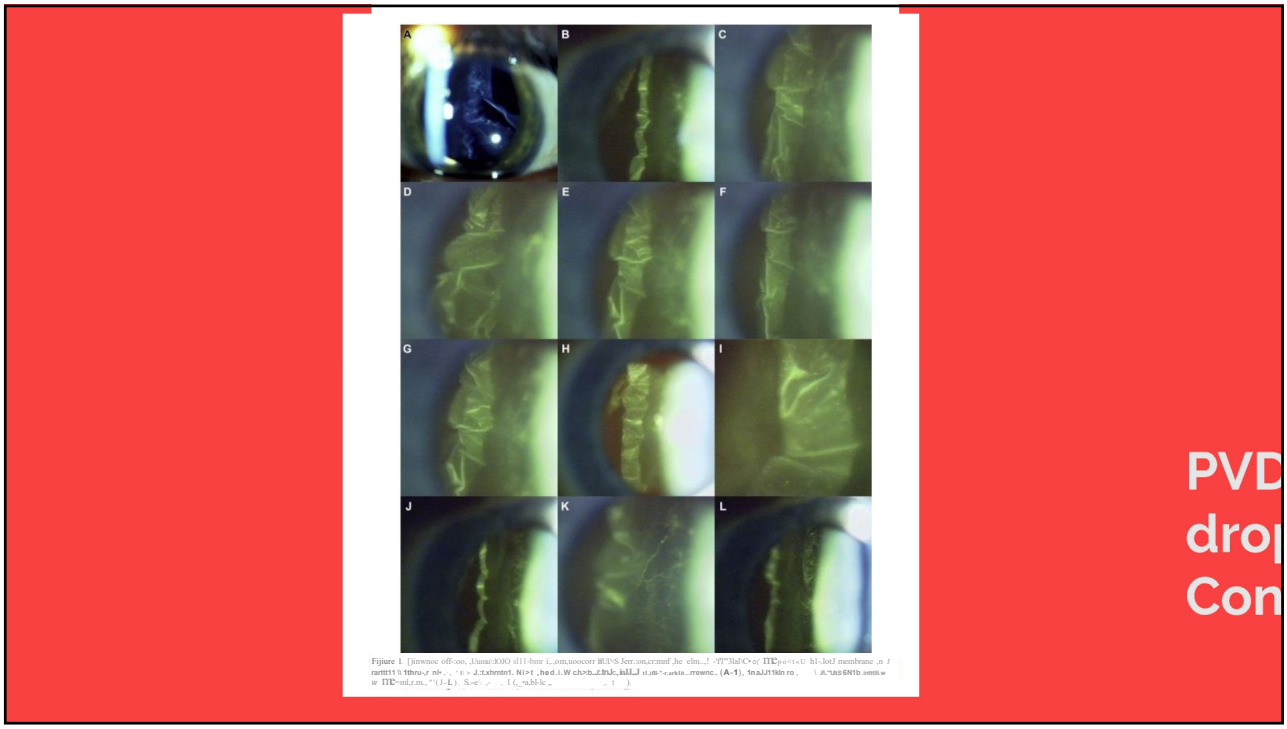

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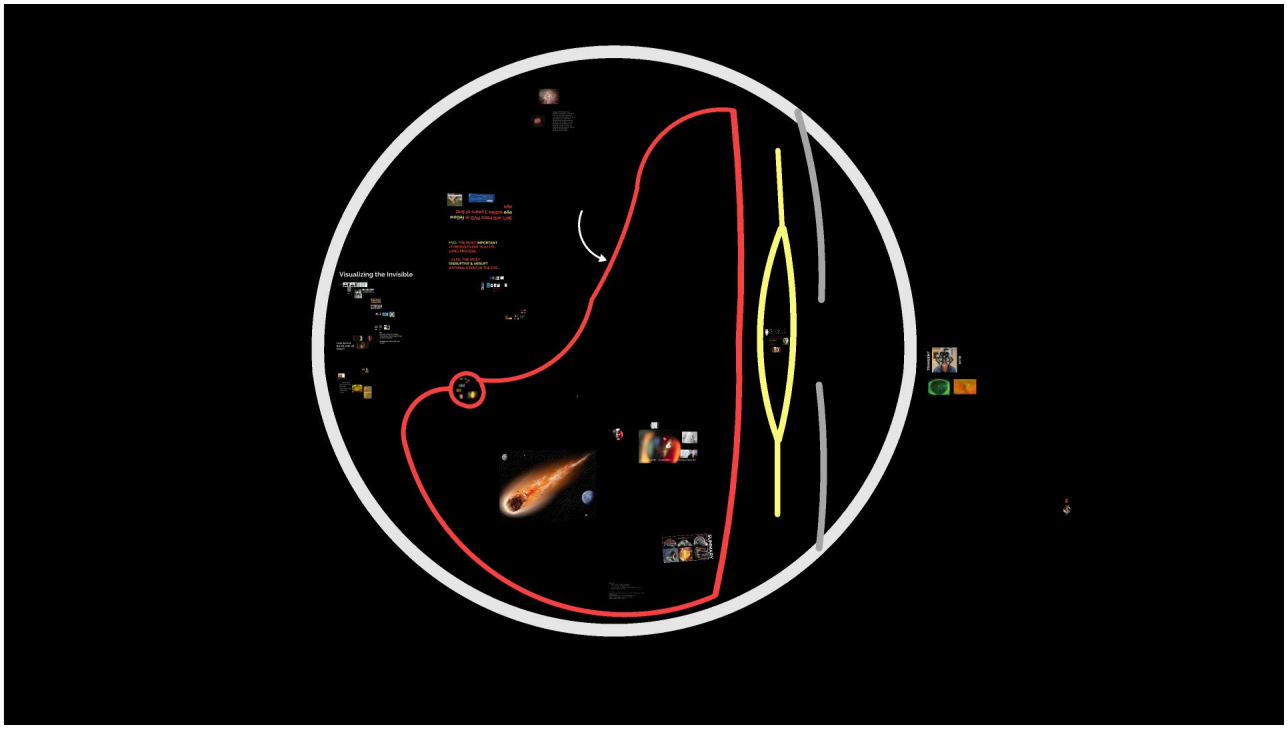

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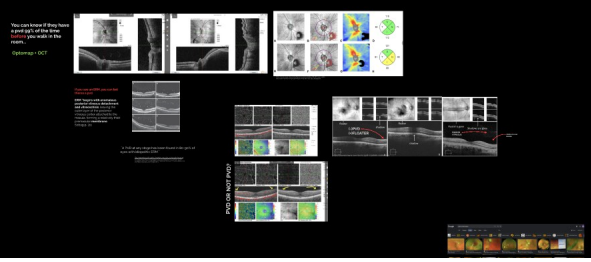
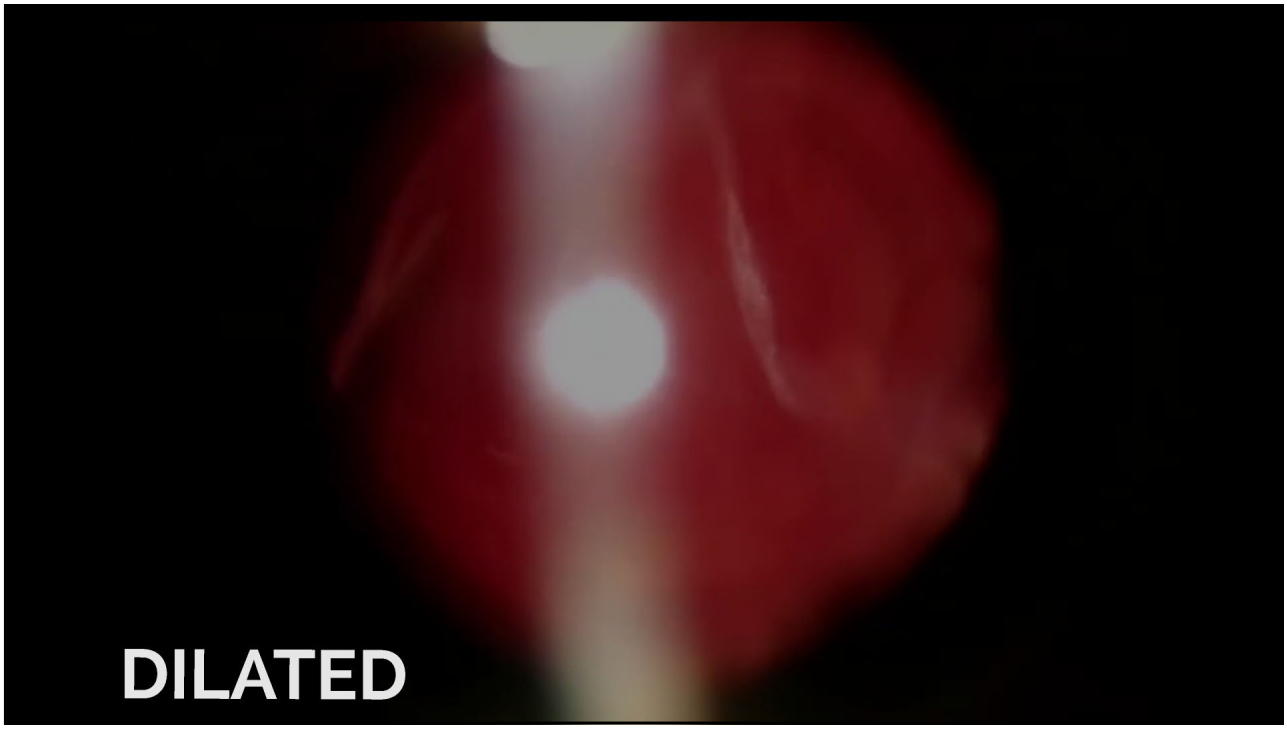
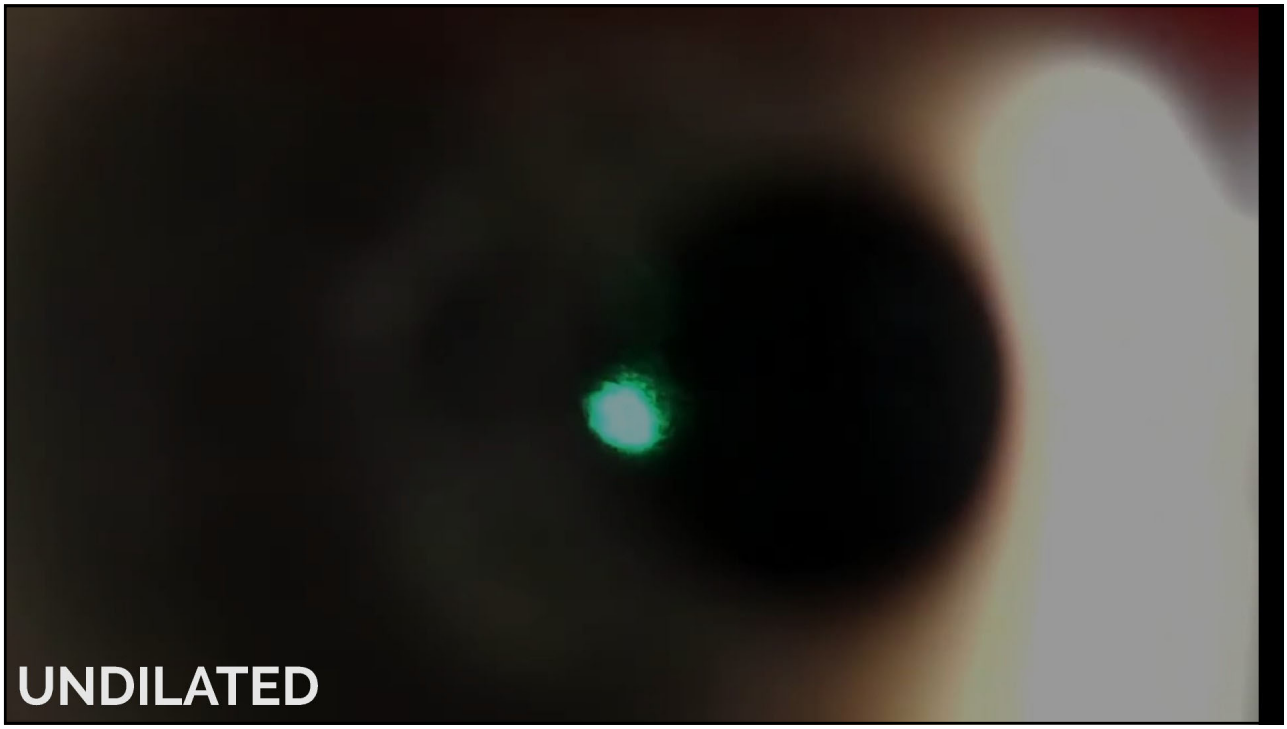


Look behind the IOL with slit lamp!!!

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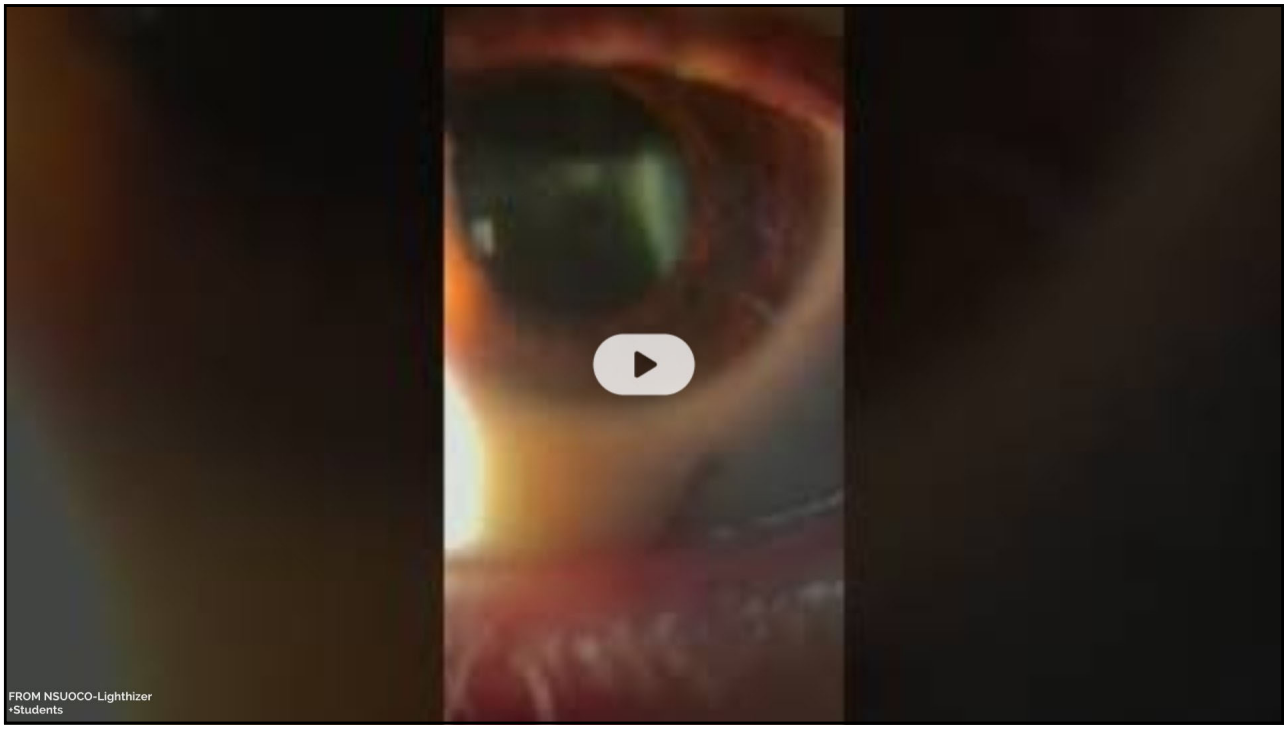
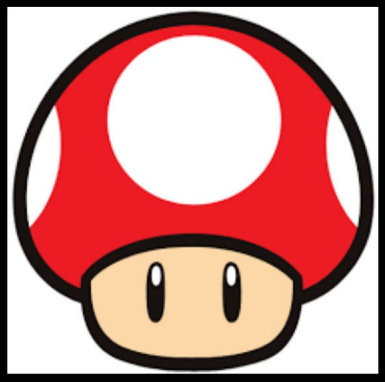

FROM NSUOCO-Lighthizer
+Students

TIP:
Dynamic Vitreous Viewing-
"Look down, then straight at my ear when I tell you.."

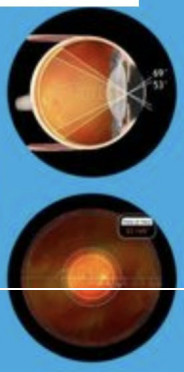
-Bottlebrush behind IOL and w/90D



Move slit beam off axis

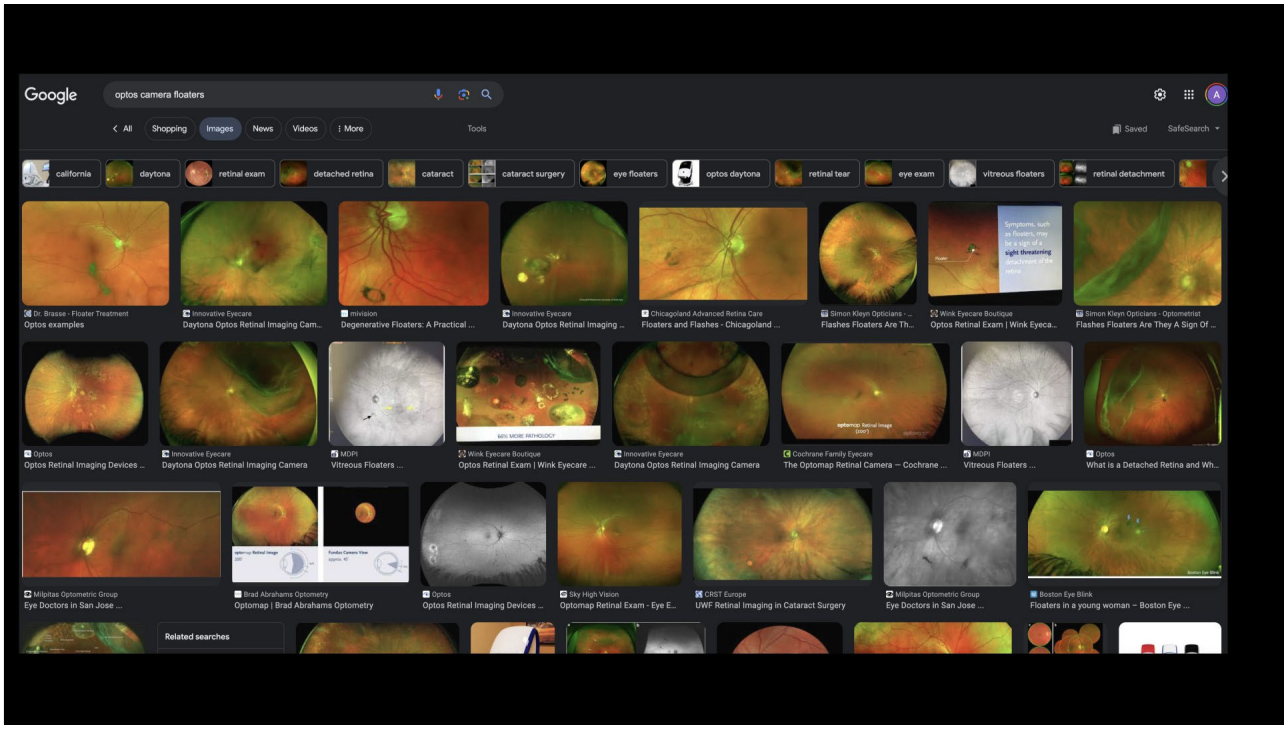
VOLK 28D LENS

CLASSIC BIO LENS



High resolution provides excellent fundus imaging.

Excellent for small pupil diagnosis and treatment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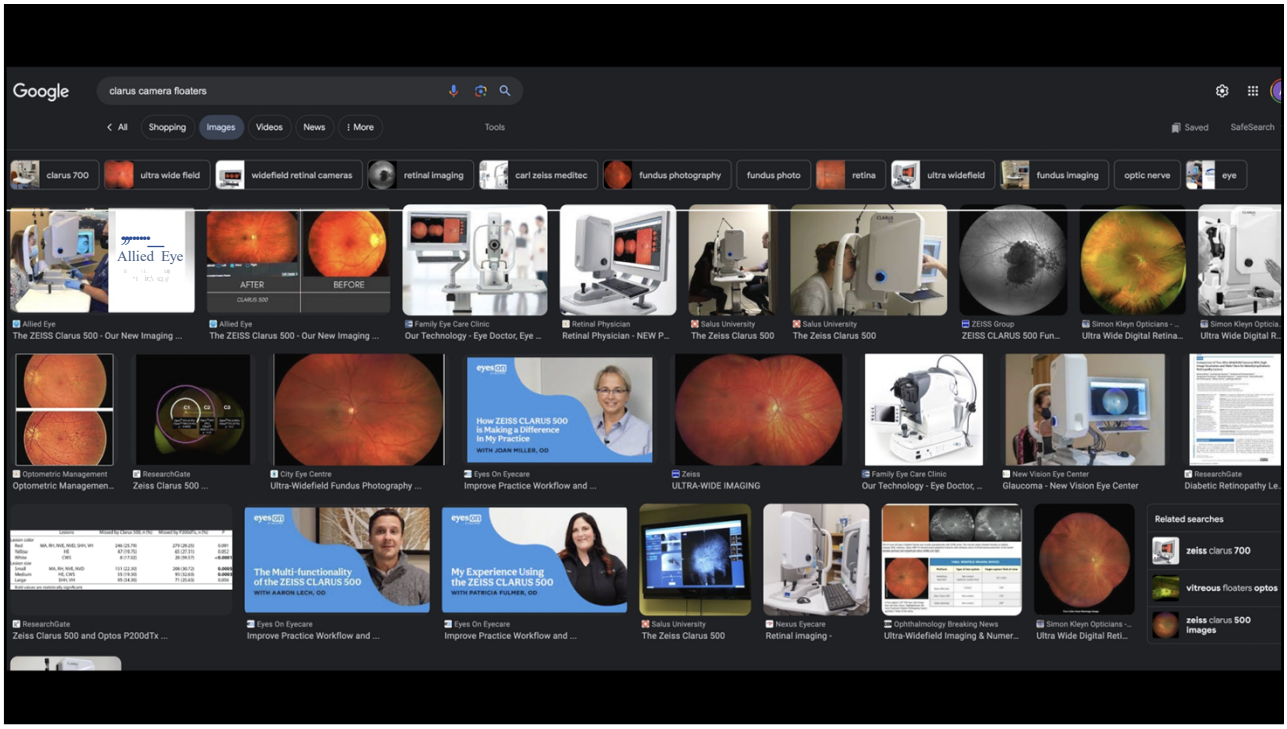
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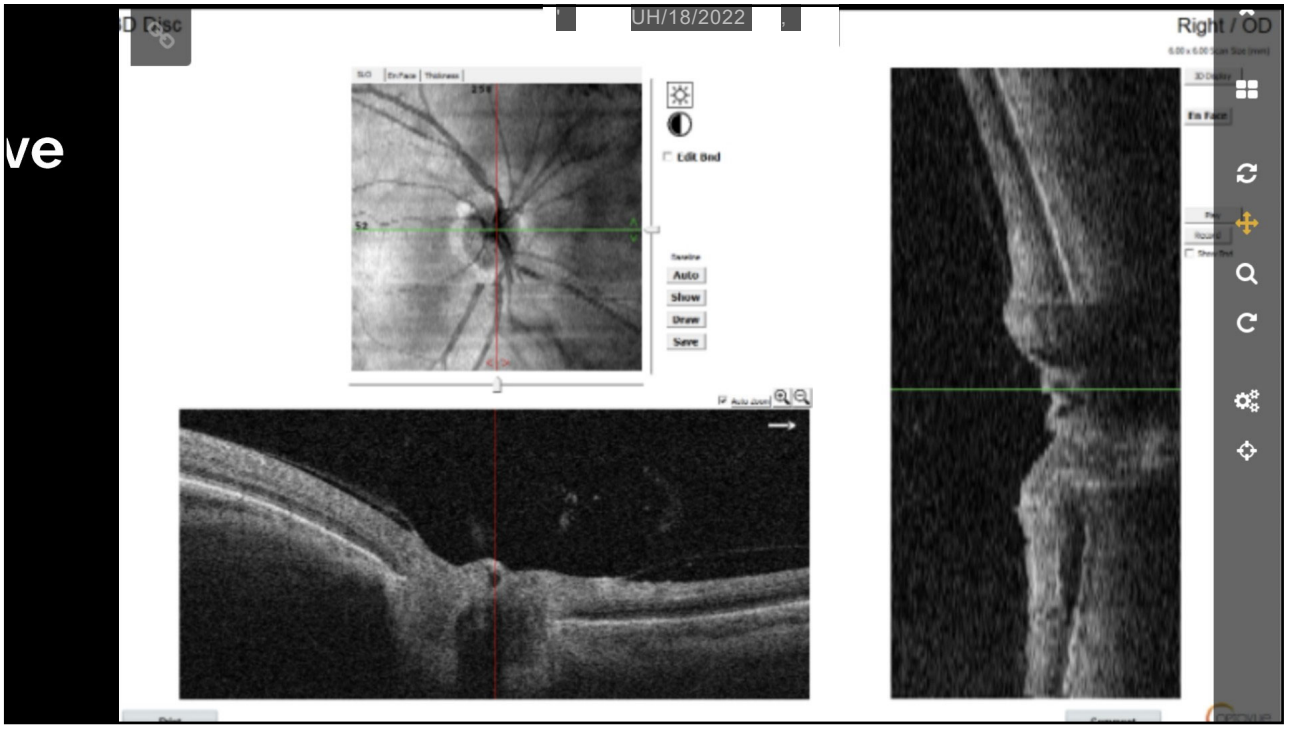
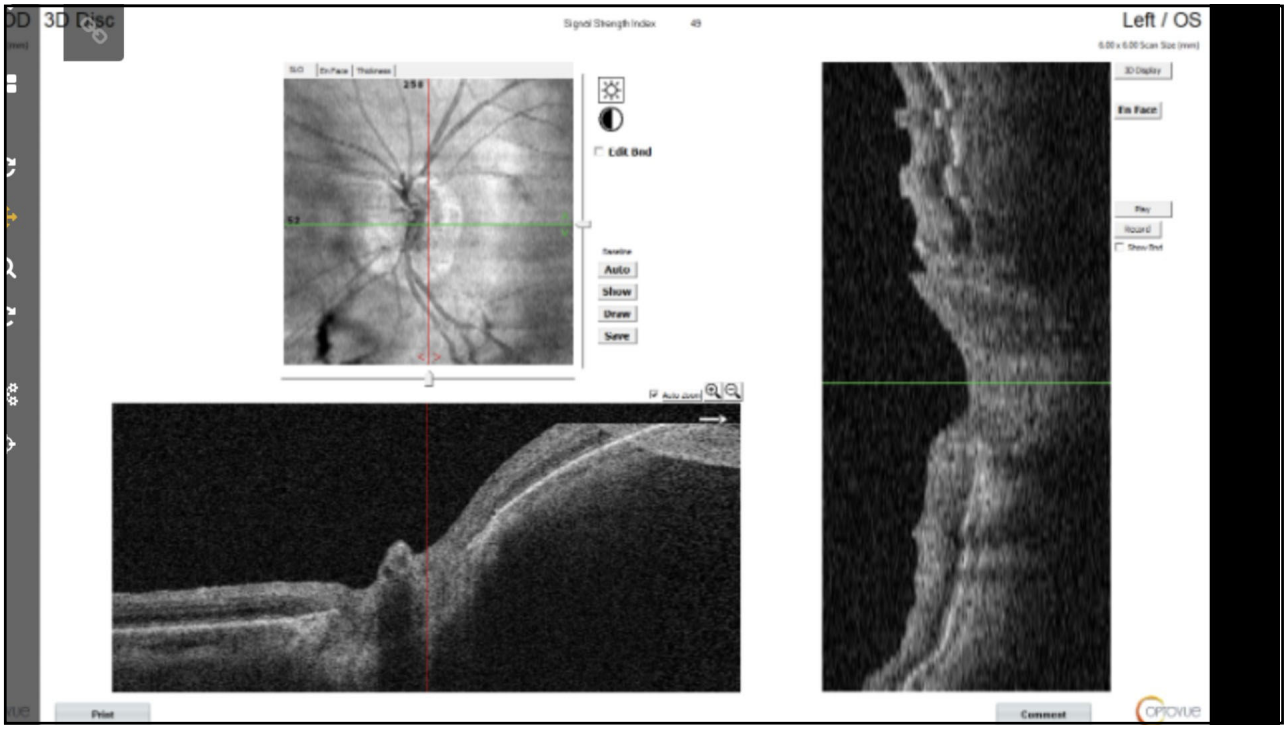
You can know if they have a pvd 99% of the time you walk in the room...

Optomap • OCT

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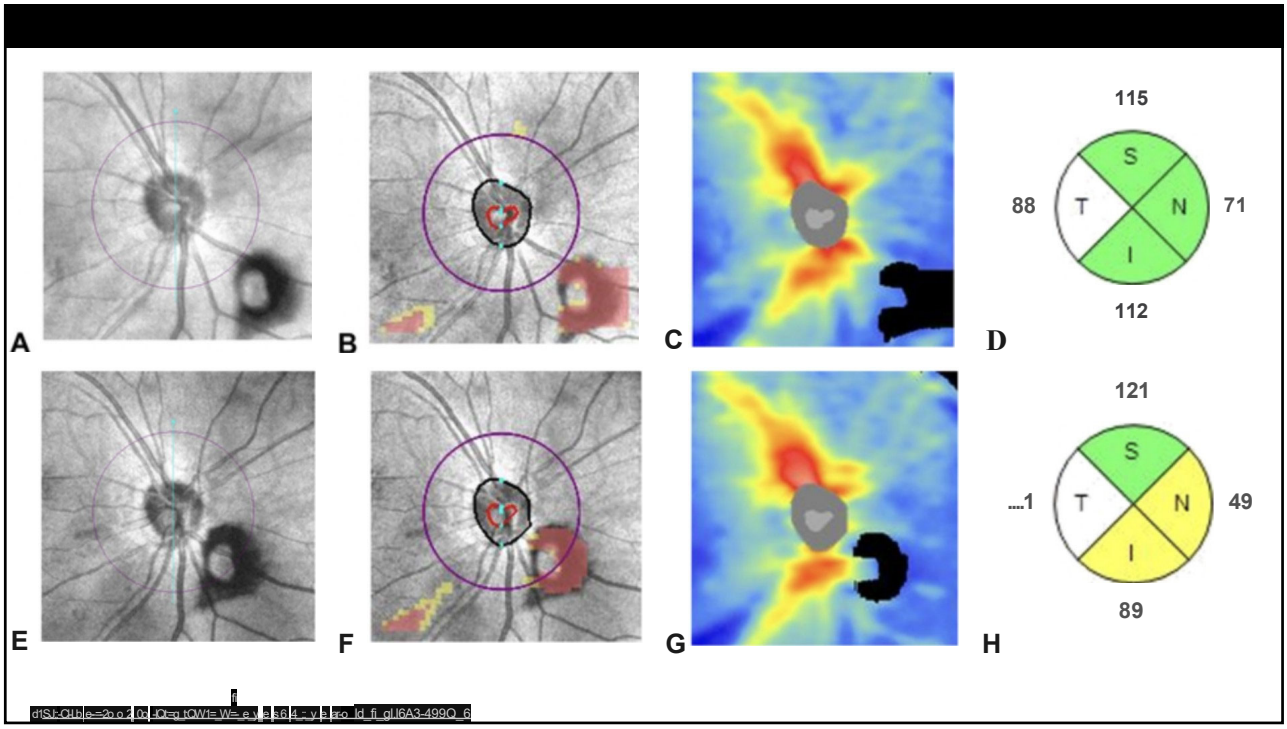
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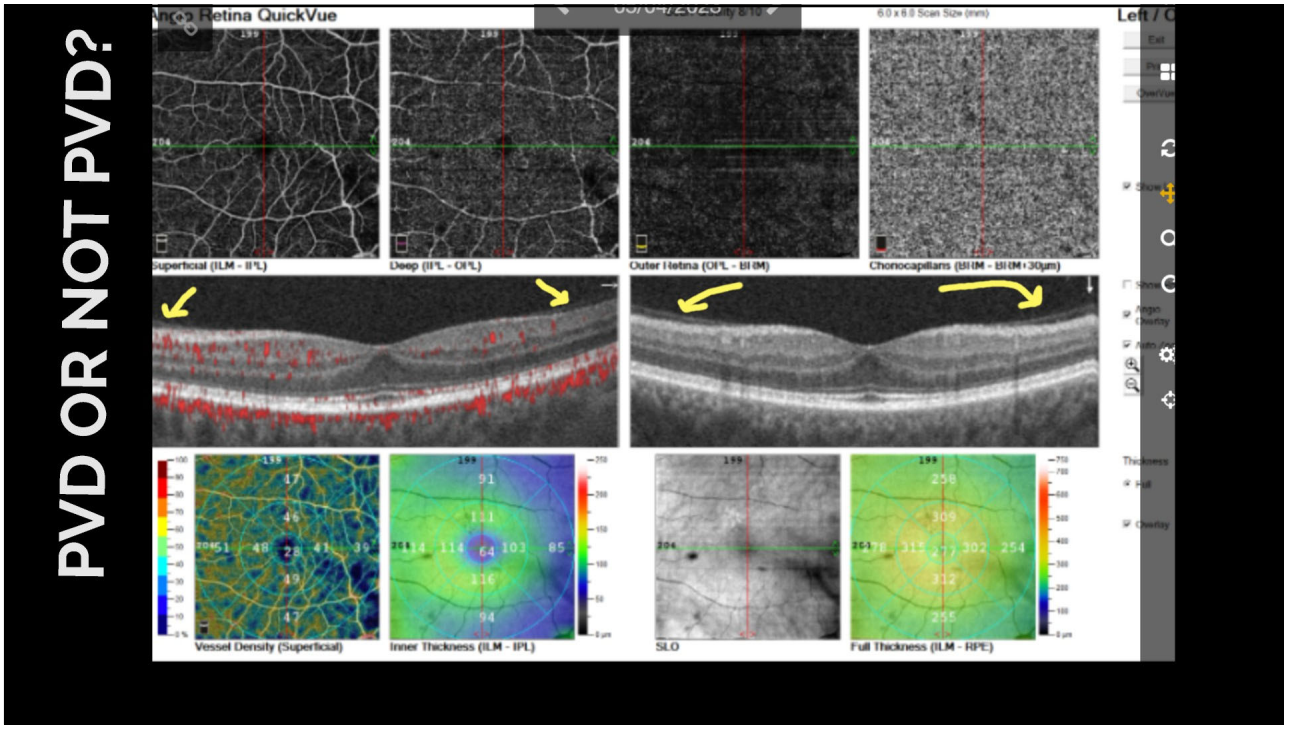
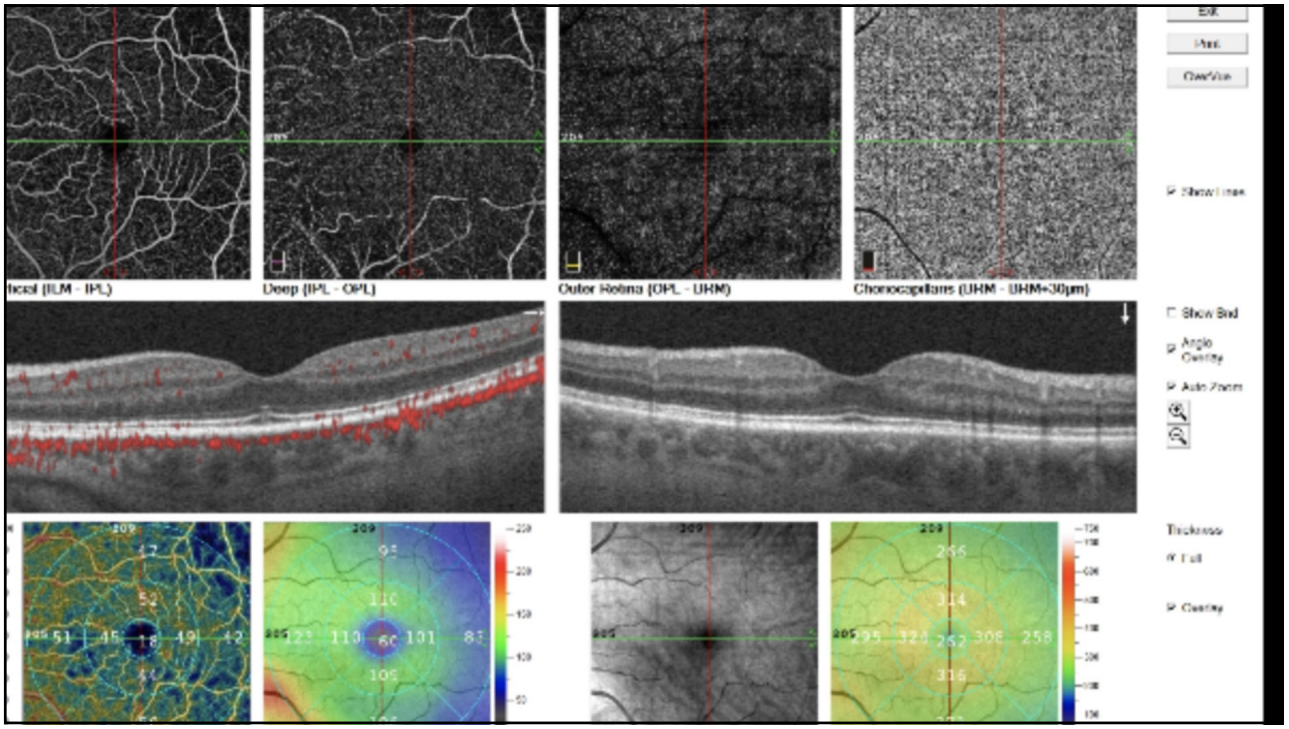
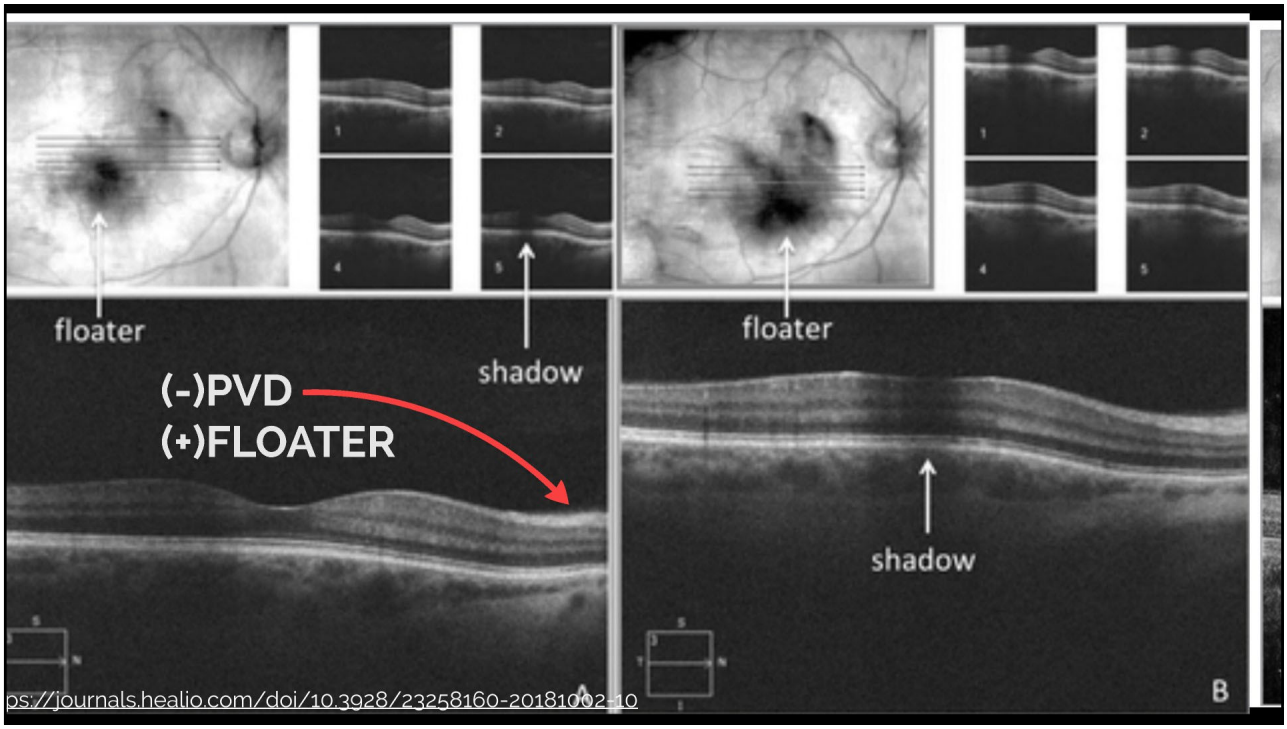

PVD OR NOT PVD?
Retina QuickVue
Superficial (ILM - IPL)
Deep (IPL - OPL)
Outer Retina (OPL - BRM)
Choriocapillaris (BRM - BRM+30μm)
Vessel Density (Superficial)
Inner Thickness (ILM - IPL)
SLO
Full Thickness (ILM - RPE)


Deep (IPL - OPL)
Outer Retina (OPL - BRM)
Choriocapillaris (BRM - BRM+30μm)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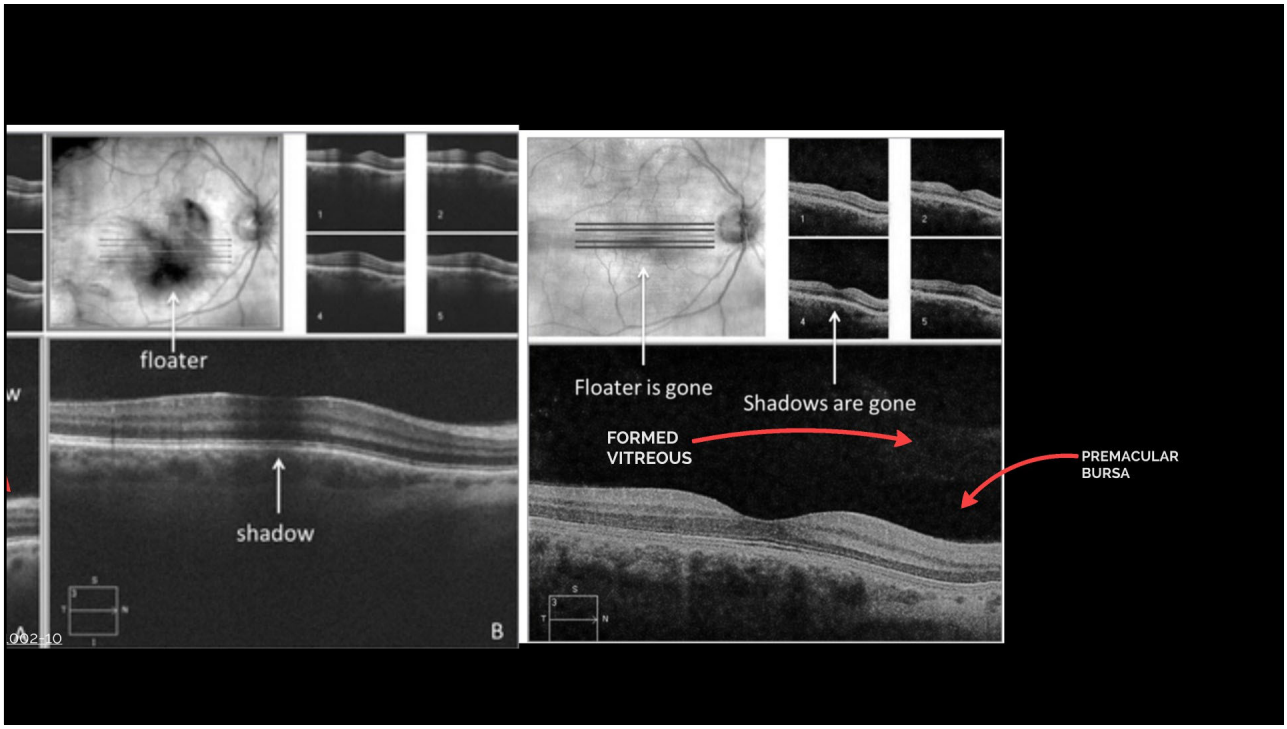
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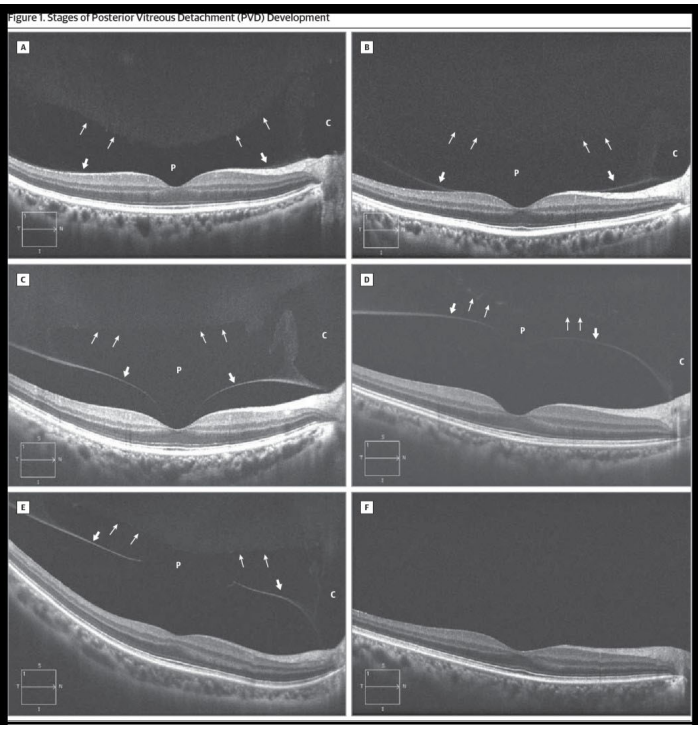
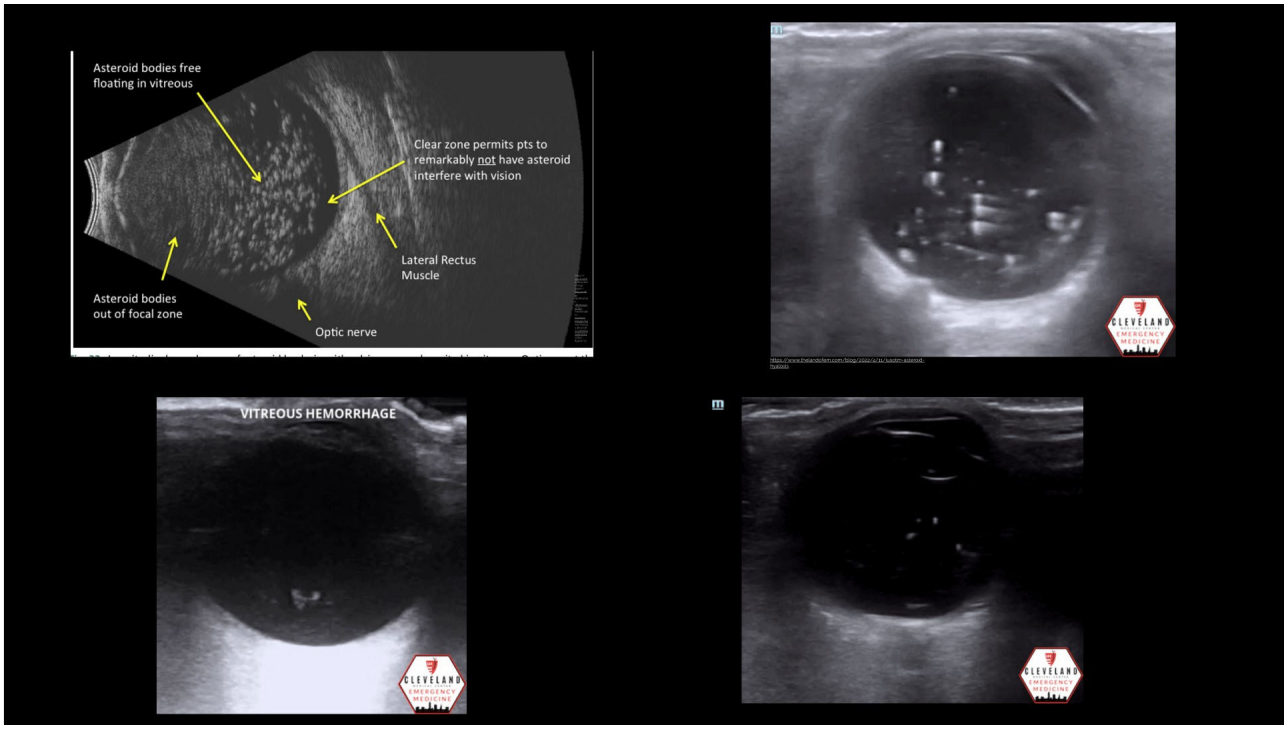


If you see an ERM, you can bet theres a pvd.

ERM "begins with anomalous posterior vitreous detachment and vitreoschisis, leaving the outer layer of the posterior vitreous cortex attached to the macula, forming a relatively thick premacular **membrane**.
Sebag p. 311



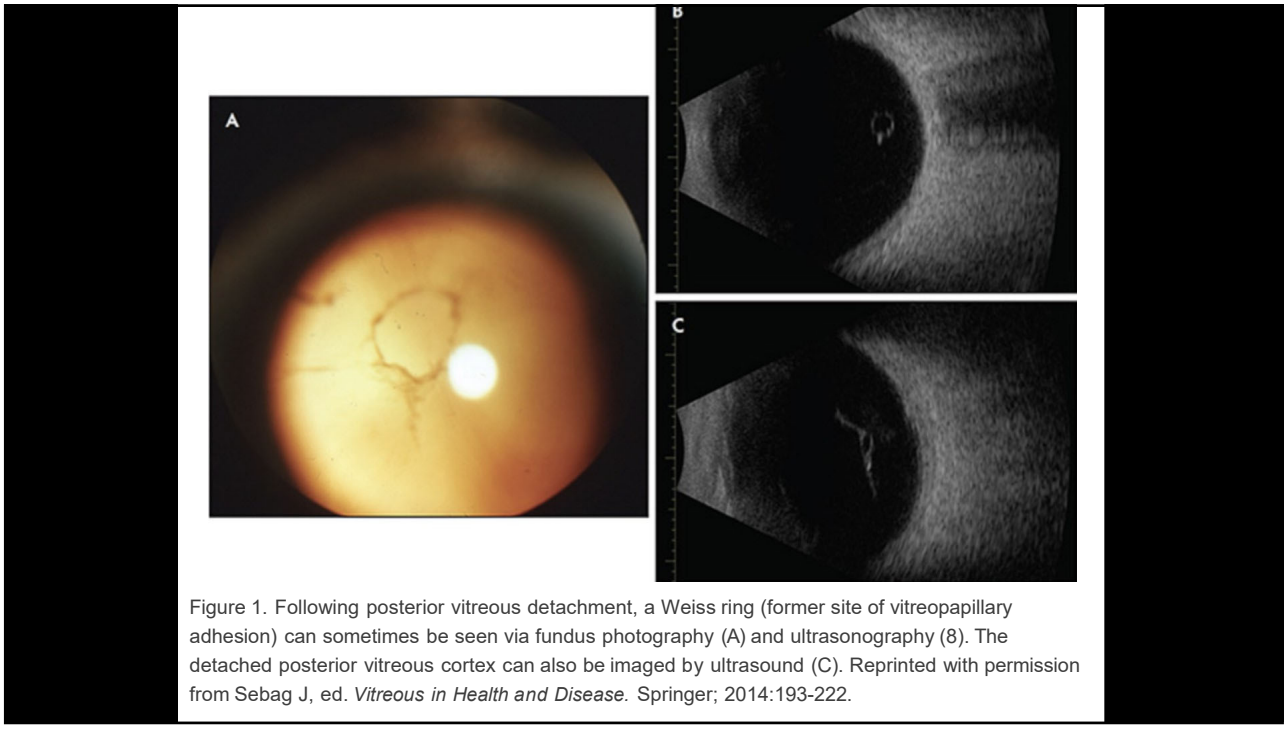
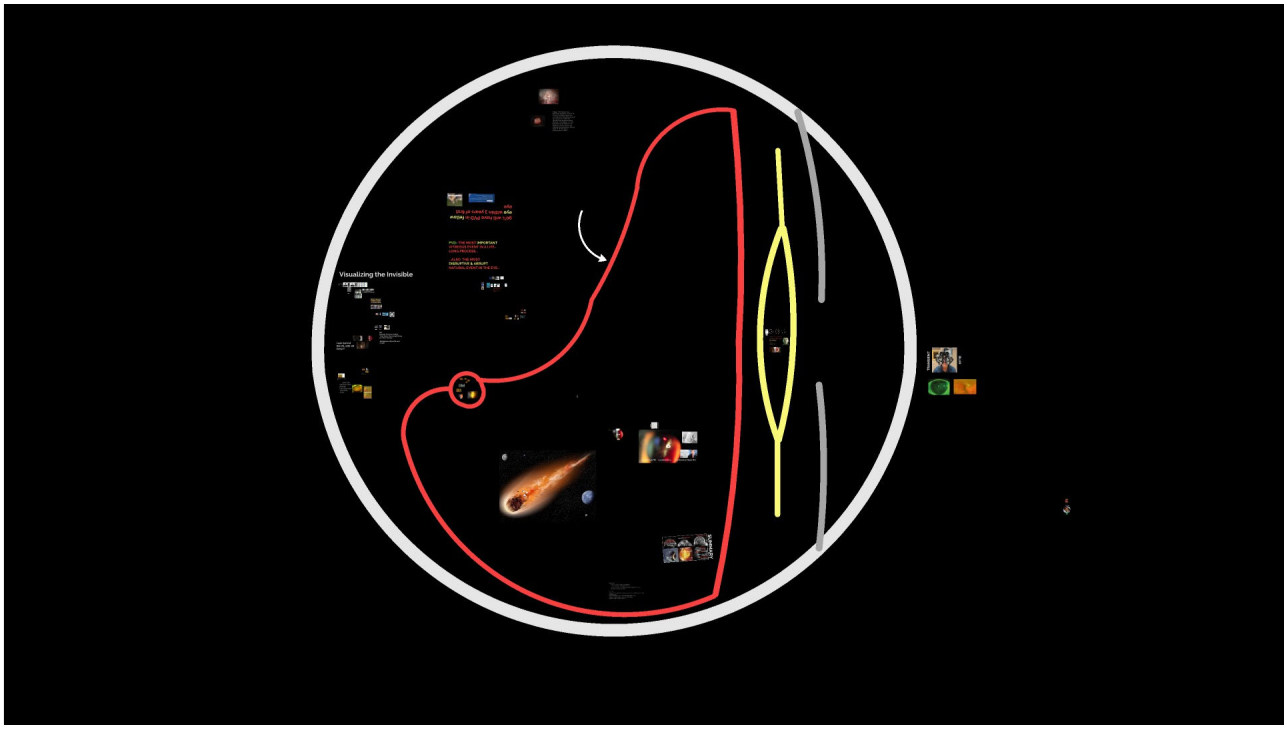
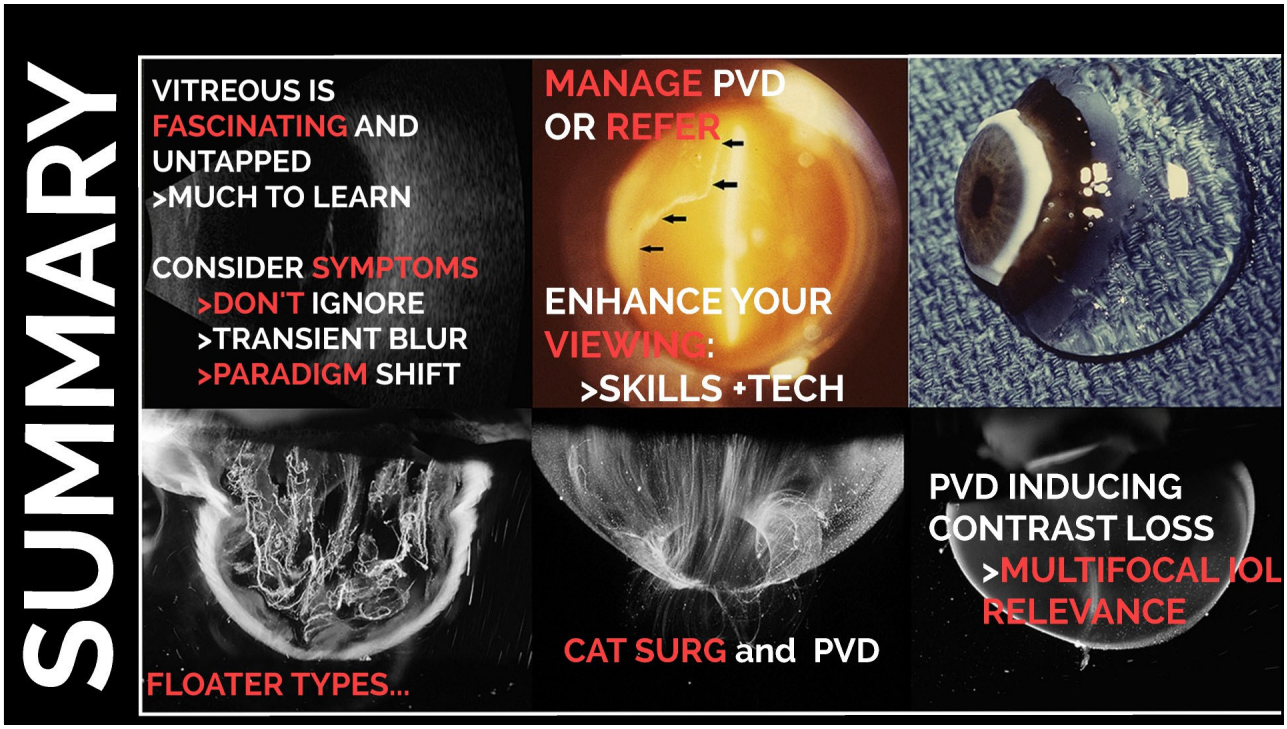
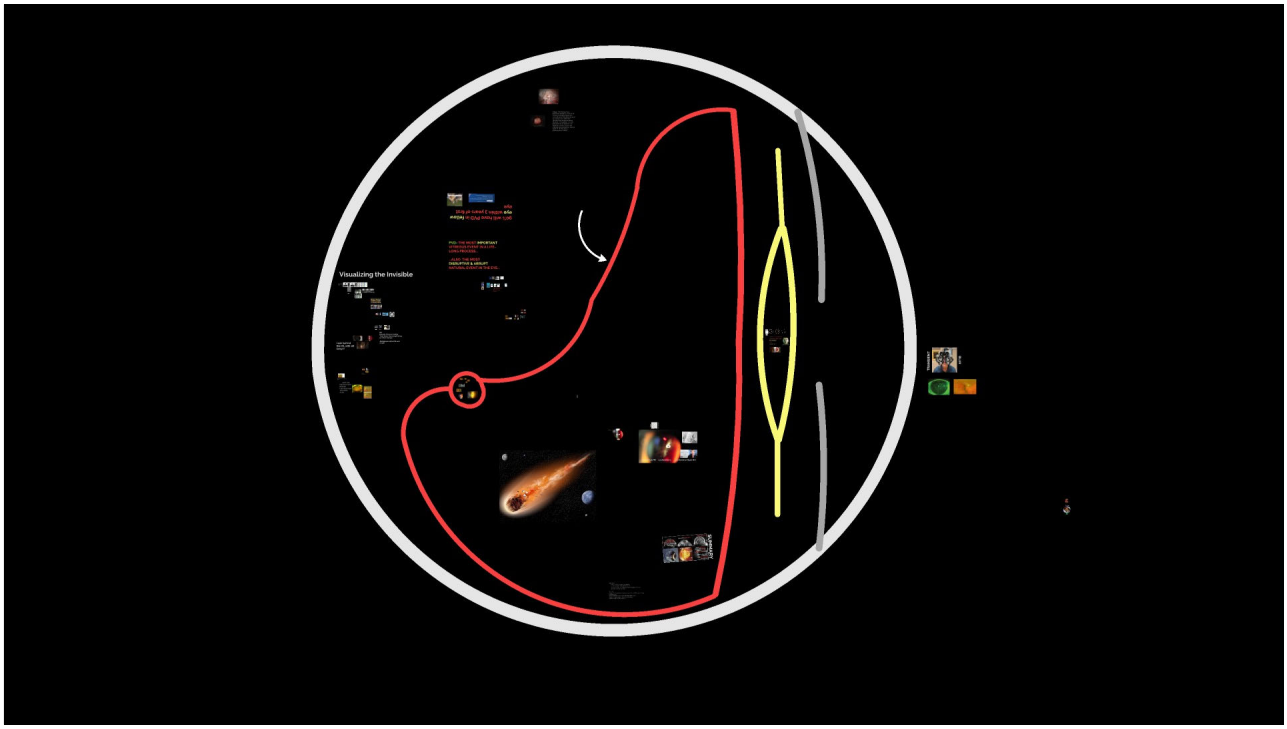


Figure 1. Following posterior vitreous detachment, a Weiss ring (former site of vitreopapillary adhesion) can sometimes be seen via fundus photography (A) and ultrasonography (8). The detached posterior vitreous cortex can also be imaged by ultrasound (C). Reprinted with permission from Sebag J, ed. *Vitreous in Health and Disease.* Springer; 2014:193-222.


Visualizing the Invisible


SUMMARY
VITREOUS IS FASCINATING AND UNTAPPED
>MUCH TO LEARN
CONSIDER SYMPTOMS
>DON'T IGNORE
>TRANSIENT BLUR
>PARADIGM SHIFT
MANAGE PVD OR REFER
ENHANCE YOUR VIEWING:
>SKILLS +TECH
FLOATER TYPES...
CAT SURG and PVD
PVD INDUCING CONTRAST LOSS
>MULTIFOCAL IOL RELEVANCE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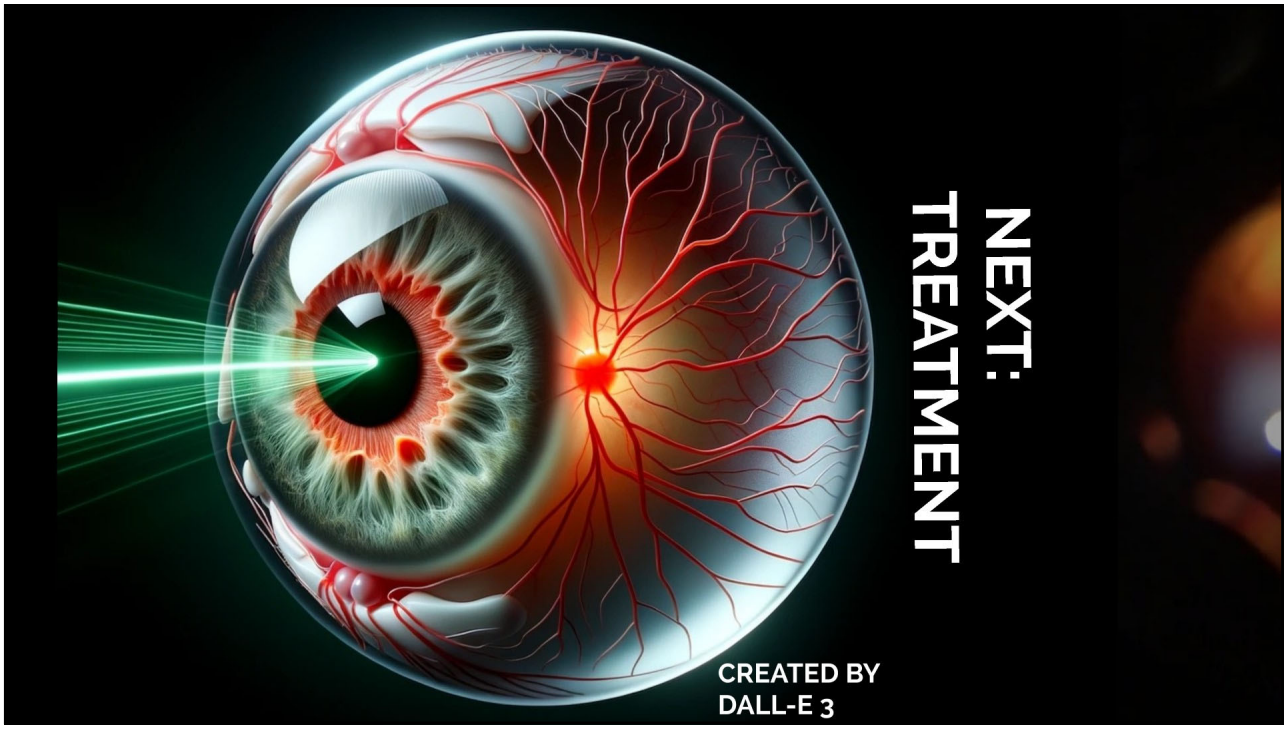
NEXT:
TREATMENT
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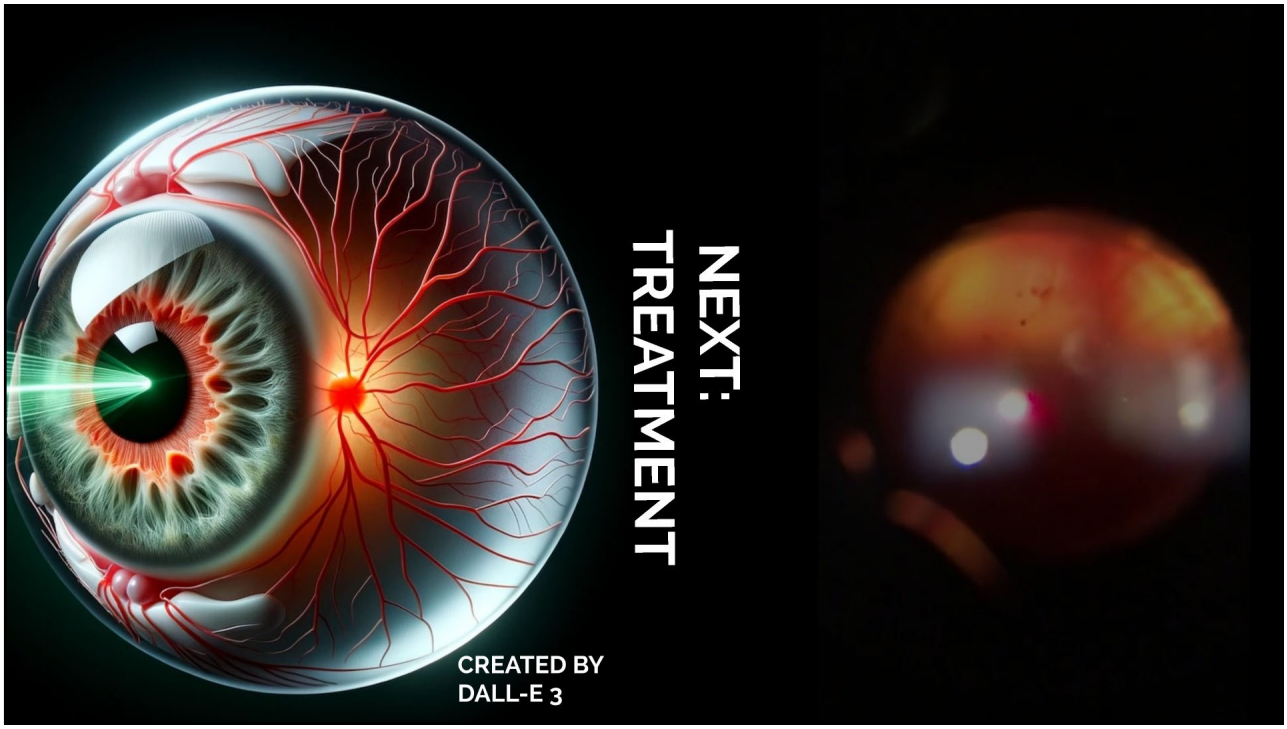
DALL-E 3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