

# Painless Vision Loss

Jose Agustin Martinez, M.D.  
President, Austin Retina Associates  
Clinical Assistant Professor,  
Department of Surgery and Perioperative Care,  
University of Texas at Austin  
Dell Medical School

---

---

---

---

---

---

---

---

## Overview

- general principles
- specific diseases
- cases
- summary

---

---

---

---

---

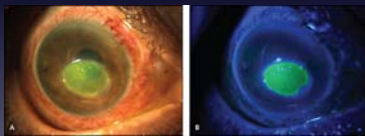
---

---

---

## Pain

- sharp = surface problem
- dull = IOP or sinus
- sharp pain + tearing = corneal scratch
- vision loss without pain = posterior segment



---

---

---

---

---

---

---

---

# Painless Vision Loss

- gradual and generalized = cataract
- sudden = posterior segment (vitreoretinal or optic nerve)

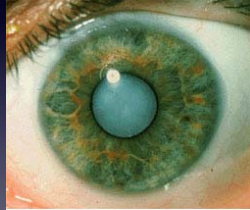


Fig. 1 A cataract is any cloudiness or opacity of the normally clear lens of the eye.

---

---

---

---

---

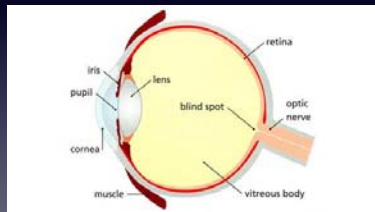
---

---

---

# Posterior Segment

- vitreous
- retina
- macula
- optic nerve



---

---

---

---

---

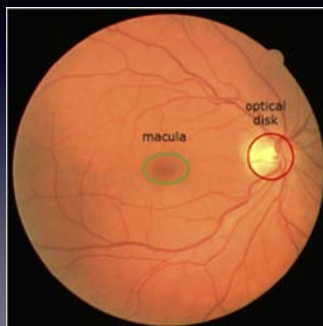
---

---

---

# Macula

- fovea
- subserves 20/20



---

---

---

---

---

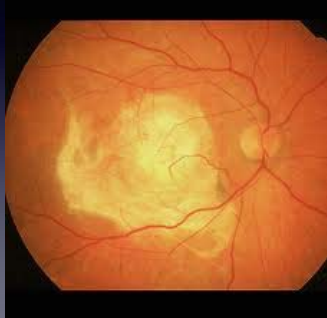
---

---

---

## Macular Scar

- vision?



---

---

---

---

---

---

---

---

## Central Scotoma



---

---

---

---

---

---

---

---

## sudden painless vision loss

- Wet Macular Degeneration
- Vitreous hemorrhage
- Retinal Detachment
- Retina Vascular Occlusion
- Ischemic Optic Neuropathy
- Central Serous Retinopathy
- Optic Neuritis
- Macroaneurysm
- Toxoplasmosis



---

---

---

---

---

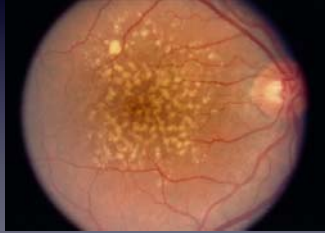
---

---

---

## Macular Degeneration (age related)

- 50 and above
- dry: gradual
- wet: sudden vision change



---

---

---

---

---

---

---

---

## CASE

- 70y WF with sudden onset centrally distorted and blurred vision
- no eye pain



---

---

---

---

---

---

---

---

## Wet Macular Degeneration

- sudden vision loss
- sudden distortion



---

---

---

---

---

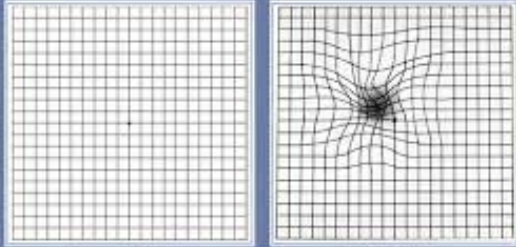
---

---

---

# Metamorphopsia

Amsler Grid Chart Comparison



Normal Vision

AMD Vision

---

---

---

---

---

---

---

---

# central scotoma



---

---

---

---

---

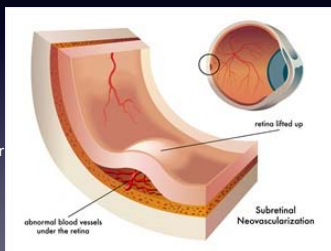
---

---

---

# Wet Macular Degeneration

- abnormal blood vessel
- destroy delicate photoreceptor layer



---

---

---

---

---

---

---

---

# Treatment for wAMD

- antiVEGF injections
- q4-12w



---

---

---

---

---

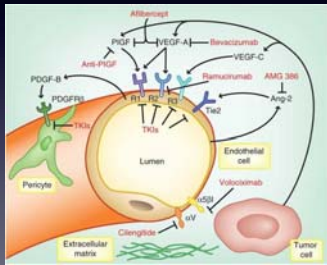
---

---

---

# AntiVEGF

- VEGF: vascular endothelial growth factor.
- aflibercept = Eylea
- ranibizumab = Lucentis
- bevacizumab = Avastin



---

---

---

---

---

---

---

---

# CASE 1

- 44y AODM x 20y
- floaters that turned into general haze
- no pain

---

---

---

---

---

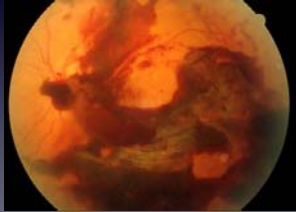
---

---

---

# Vitreous Hemorrhage

- often floaters initially
- fluctuating vision
- diabetics
- + flashes think retinal tear?



---

---

---

---

---

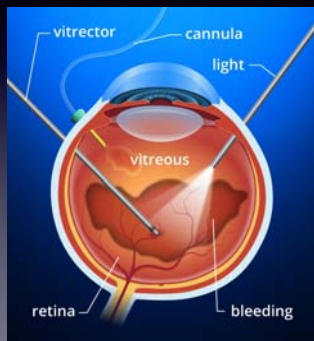
---

---

---

# Treatment for VH

- spontaneously clear or...
- operate



---

---

---

---

---

---

---

---

# CASE 2

- 24y myope sudden onset flashes then floaters.
- 1 day later superior curtain progressing toward central vision over days
- no pain

---

---

---

---

---

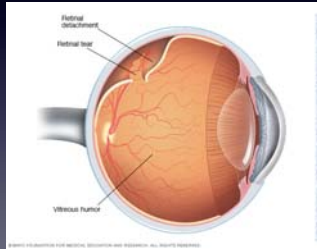
---

---

---

# Retina Detachment

- F/F
- enlarging curtain
- macula on or off?



---

---

---

---

---

---

---

---



---

---

---

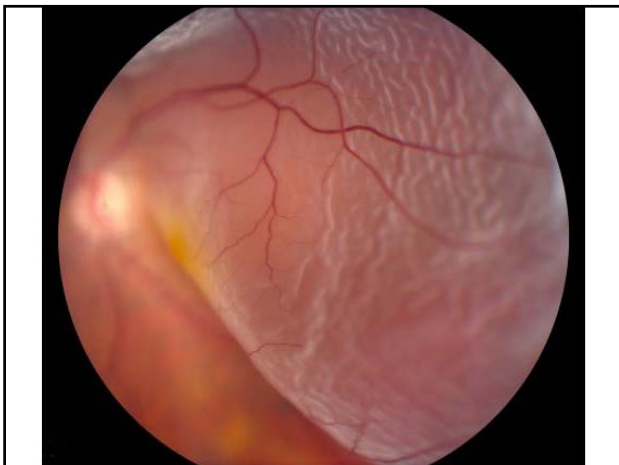
---

---

---

---

---



---

---

---

---

---

---

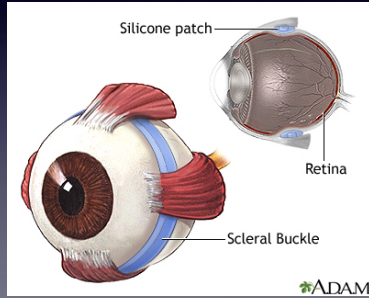
---

---



# Treatment for RD

- scleral buckle
- vitrectomy



---

---

---

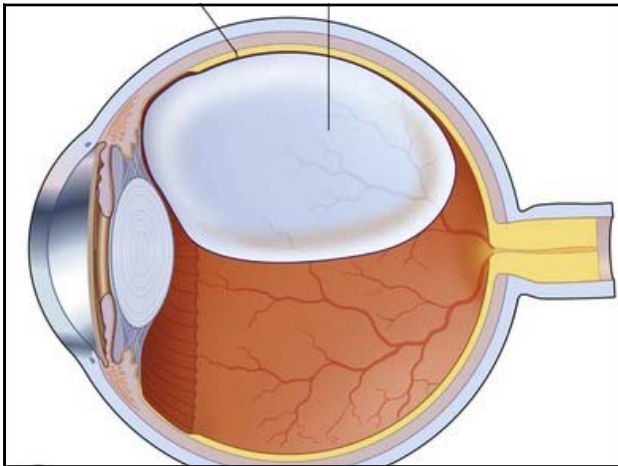
---

---

---

---

---



---

---

---

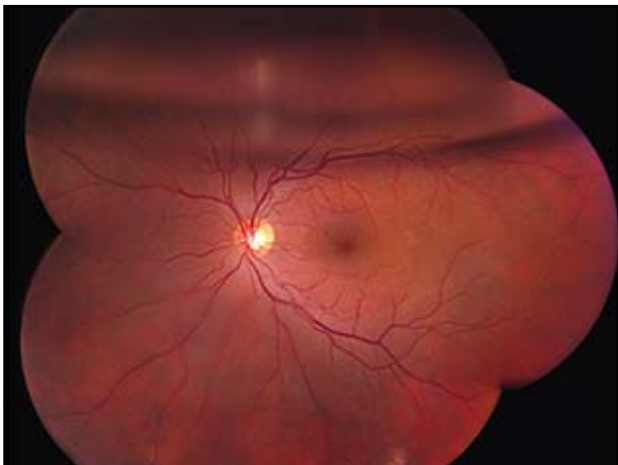
---

---

---

---

---



---

---

---

---

---

---

---

---

## CASE 3

- 62y HTN and AODM
- sudden onset vision loss involving half of visual field
- no pain

---

---

---

---

---

---

---

---

## Retinal Vascular Disease

- Retina Vein Occlusion
- Retinal Artery Occlusion



---

---

---

---

---

---

---

---

## CRVO

- DM, HTN
- variable outcome



---

---

---

---

---

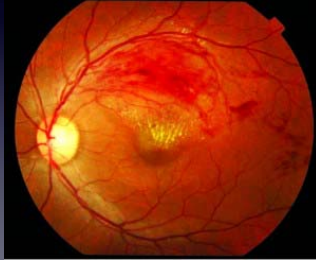
---

---

---

# BRVO

- sectoral vision loss
- HTN, DM, chol, age, and vascular anatomy



---

---

---

---

---

---

---

---

# Treatment for RVO

- antiVEGF injections
- steroid injections
- laser



---

---

---

---

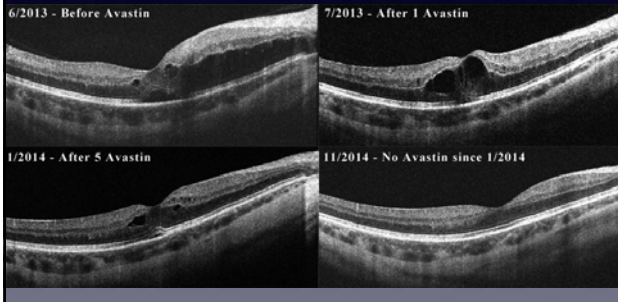
---

---

---

---

# antiVEGF injections



---

---

---

---

---

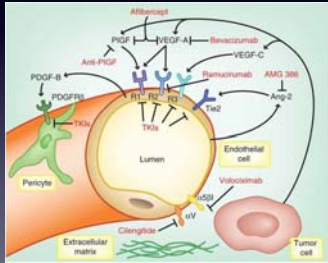
---

---

---

# AntiVEGF

- VEGF: vascular endothelial growth factor.
- aflibercept = Eylea
- ranibizumab = Lucentis
- bevacizumab = Avastin



---

---

---

---

---

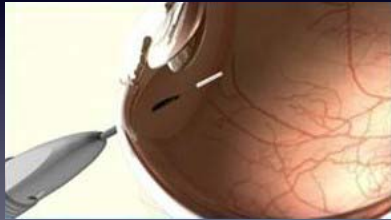
---

---

---

# Steroid for RVO

- dexamethasone
- triamcinolone



---

---

---

---

---

---

---

---

# CASE 4

- 70y WF with sudden onset blurred vision
- also HA/F/NS/temporal tenderness
- jaw claudication and scalp tenderness
- no eye pain



---

---

---

---

---

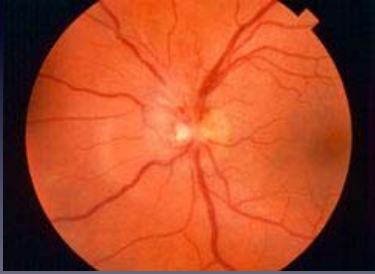
---

---

---

# Ischemic Optic Neuropathy

- AION
- arteritic due to Temporal arteritis?
- constitutional symptoms?
- half VF loss



---

---

---

---

---

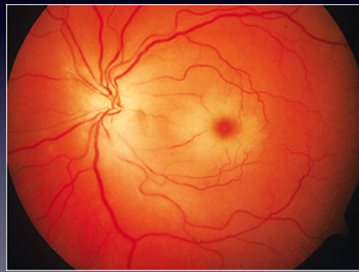
---

---

---

# Central Retinal Artery Occlusion

- 90 minutes
- eye massage
- temporal arteritis



---

---

---

---

---

---

---

---

# CASE 1

- 44y AODM x 20y
- floaters that turned into general haze
- no pain

---

---

---

---

---

---

---

---



---

---

---

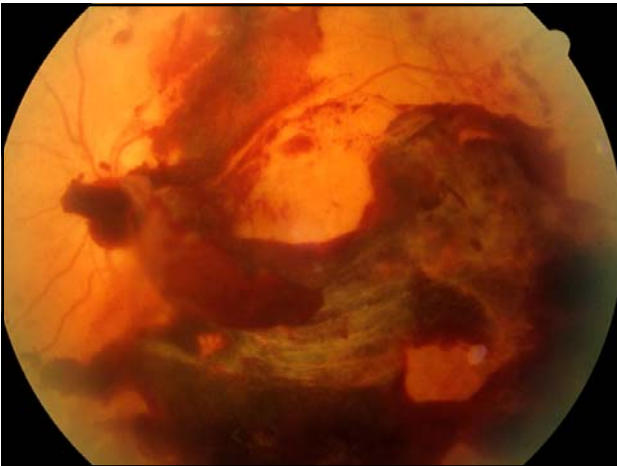
---

---

---

---

---



---

---

---

---

---

---

---

---

## CASE 2

- 24y myope sudden onset flashes then floaters.
- 1 day later superior curtain progressing toward central vision over days
- no pain

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

### CASE 3

- 62y HTN and AODM
- sudden onset vision loss involving half of visual field
- no pain

---

---

---

---

---

---

---

---



---

---

---

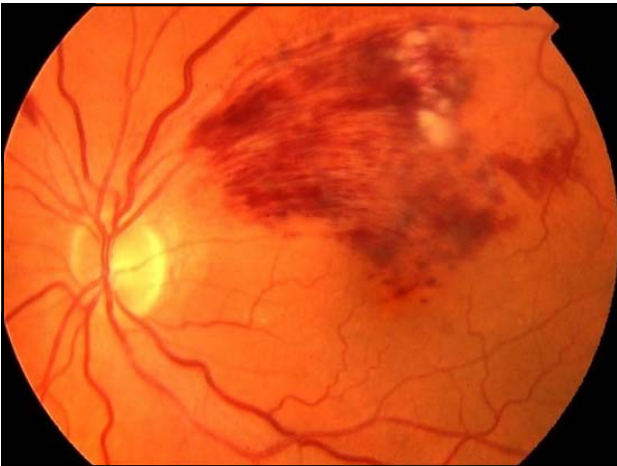
---

---

---

---

---



---

---

---

---

---


---

---

---

**CASE 4**

- 70y WF with sudden onset blurred vision
- also HA/F/NS/temporal tenderness
- jaw claudication and scalp tenderness
- no eye pain



Wellness Images

---

---

---

---

---

---

---

---



## CASE 5

- 32 yM CTL wearer
- irritated eye x 3 days
- progressed to redness
- very painful eye.



---

---

---

---

---

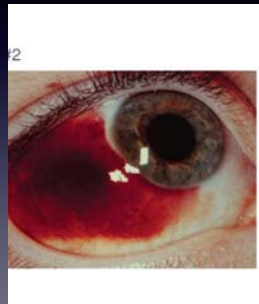
---

---

---

## Summary

- eye pain and redness = surface problem
- painless vision loss = posterior segment problem
- same or next day referral
- trauma...metallic ricochet? refer



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---