

Sudden Loss of Vision

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Sudden Loss of Vision

- Sudden Loss of Vision
 - Monocular vs. Binocular
 - Painful vs. Painless
 - Transient vs. Prolonged

Sudden Loss of Vision

Or

Prolonged, Monocular, Painless,
Sudden Loss of Vision

Sudden Loss of Vision

- Retinal vessel occlusion
- Optic neuropathy
- Retinal detachment
- Vitreous hemorrhage
- Macular degeneration
- Psychogenic
- Sudden notice

Sudden Loss of Vision

- Eye Exam History
 - Medical History
 - ASCVD, DM, thyroid
 - Symptoms besides vision loss
 - Pain
 - Photopsia
 - Floaters
 - Other eye surgery

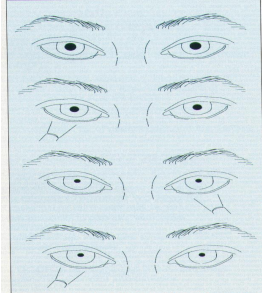
Sudden Loss of Vision

- Eye Exam
 - Vision
 - Pupils
 - Motility
 - External exam
 - Ophthalmoscopy
 - Visual Fields



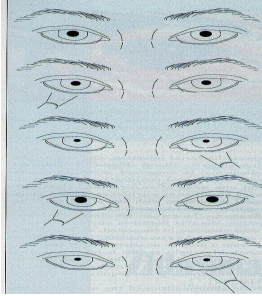
Sudden Loss of Vision

- Pupils
 - most important exam finding
 - cannot be faked
 - no patient input
 - NO PERRLA
 - NO WNL



Sudden Loss of Vision

- Afferent Pupil Defect
 - swinging flashlight
 - optic nerve or retinal damage



Sudden Loss of Vision

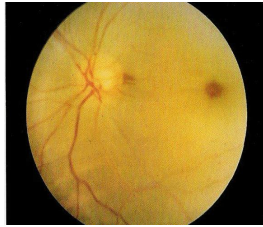
- Retinal vascular occlusion
- Optic neuropathy
- Retinal detachment
- Vitreous hemorrhage
- Macular degeneration
- Psychogenic
- Sudden notice

Sudden Loss of Vision

- Retinal vascular occlusion
 - Central retinal artery occlusion (CRAO)
 - Central retinal vein occlusion (CRVO)

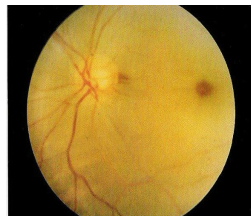
Sudden Loss of Vision

- Central retinal artery occlusion (CRAO)
 - Etiology
 - emboli, thrombosis due to ASCVD, vasculitis, reduction of blood flow due to carotid disease, hypotension



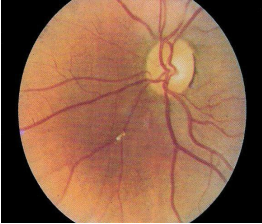
Sudden Loss of Vision

- Central retinal artery occlusion (CRAO)
 - Associated diseases
 - HTN 70%
 - Carotid stenosis 45%
 - valve disease 25%
 - DM 25%
 - embolus (mural) 25%




Sudden Loss of Vision

- Central Retinal Artery Occlusion (CRAO)
 - RX:
 - Immediate (less than 90 minutes)
 - massage
 - lower IOP
 - medical evaluation



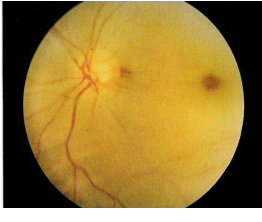
Sudden Loss of Vision

- Central Retinal Artery Occlusion (CRAO)
 - Workup:
 - Carotid
 - Cardiac Valve
 - Collagen Vascular Disease
 - Coagulopathy
 - Giant Cell Arteritis
 - IV drug abuse
 - Migraine




Sudden Loss of Vision

- Central Retinal Artery Occlusion (CRAO)
 - Keys:
 - Poor visual outcome
 - 90% with positive work-up
 - over 50% die within 10 years




Sudden Loss of Vision

- Central Retinal Vein Occlusion (CRVO)
 - Etiology
 - thrombus at lamina cribrosa
 - ASCVD 75%
 - HTN 50%
 - Hyperlipidemia 50%
 - DM 30%
 - Glaucoma 20%
 - if young, hyperviscosity, blood dyscrasia, platelet dysfunction, cryoglobulinemia, lupus anticoagulant



Sudden Loss of Vision

- Central Retinal Vein Occlusion (CRVO)
 - RX:
 - lower IOP
 - Medical evaluation
 - Laser to prevent ischemia or edema
 - No change in mortality

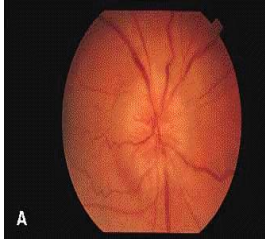


Sudden Loss of Vision

- Optic Neuropathy
 - Anterior Ischemic Optic Neuropathy (AION)
 - Giant Cell Arteritis (Temporal Arteritis)
 - Optic neuritis

Sudden Loss of Vision

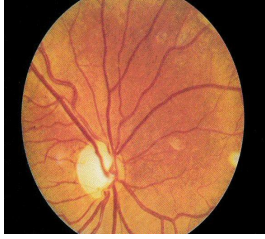
- Anterior Ischemic Optic Neuropathy (AION)
 - elderly
 - APD
 - disc edema
 - visual field with horizontal defect



A


Sudden Loss of Vision

- Anterior Ischemic Optic Neuropathy (AION)
 - Usually does not improve
 - Workup
 - HTN, DM, carotid disease, GCA, Lupus, polyarteritis
 - ESR STAT
 - CBC, ANA, RPR, BS
 - ?MRI, ?carotid duplex



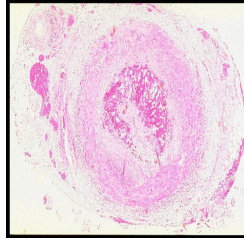
Sudden Loss of Vision

- Giant Cell Arteritis/ Temporal Arteritis
 - over age 70, rare under 50, white
 - HA, fever, weight loss, arthralgia, myalgia, fever, scalp tenderness, jaw claudication
 - angina, GI ischemia, peripheral neuropathy



Sudden Loss of Vision

- Giant Cell Arteritis/
Temporal Arteritis
 - STAT ESR
 - Path: giant cells, skip lesions, disruption of elastic lamina
 - high dose steroids
 - 75% bilateral



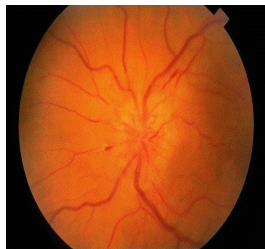
Sudden Loss of Vision

- Optic Neuritis
 - MS (Fungal, viral)
 - 3:1 women:men
 - papillitis, edema
 - 75-90% regain 20/30 vision in 6 months



Sudden Loss of Vision

- Optic Neuritis
 - MRI
 - Consider RPR, ESR, Lyme titer, ANA
 - IV methylprednisolone
 - at 6 months, slight benefit
 - at 1 yr, no difference
 - at 2 yr, decrease rate of MS
 - recurs in 15%



Sudden Loss of Vision

- AION
 - age greater than 50
 - women=men
 - no pain
 - HTN, DM
 - swollen nerve
 - look for GCA
- Optic Neuritis
 - age 20-40
 - women > men
 - pain on eye movement
 - MS
 - +/- disc edema
 - IV prednisolone

Sudden Loss of Vision

- Retinal Detachment
 - Etiology
 - tear in inner retina
 - fluid separates the layers of the retina
 - myopia, surgery, trauma, vascular disease



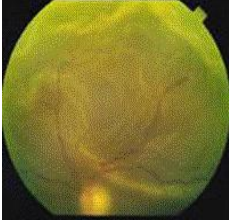
Sudden Loss of Vision

- Retinal Detachment
 - Symptoms
 - Floaters
 - Photopsia
 - Curtain over vision
 - intermittent changes in vision



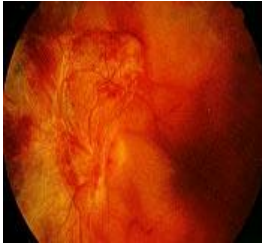
Sudden Loss of Vision

- Retinal Detachment
 - Treatment
 - immediate surgery
 - laser and gas injection
 - Keys
 - early intervention best success
 - macular off implication
 - PVR




Sudden Loss of Vision

- Vitreous Hemorrhage
 - Etiology
 - Diabetic retinopathy
 - retinal tear/detachment
 - vitreous detachment
 - trauma
 - coagulopathy
 - rare: tumor, Sickle cell disease,



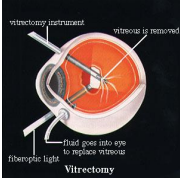
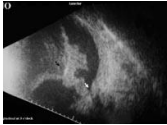
Sudden Loss of Vision

- Vitreous Hemorrhage
 - Exam
 - no red reflex
 - +/- APD (depends on underlying cause)



Sudden Loss of Vision


- Vitreous Hemorrhage
 - Evaluation
 - B Scan ultrasound
 - Treatment
 - observe
 - avoid anticoagulants
 - vitrectomy



Vitrectomy


Sudden Loss of Vision

- Age-Related Macular Degeneration
 - Etiology
 - older age, women, family history, RPE atrophy
 - Exam
 - drusen-hyaline degeneration of RPE
 - break in Bruch's
 - choroidal vessels bleed



Sudden Loss of Vision


- Age-Related Macular Degeneration (AMD)
 - Symptoms
 - gradual/rapid loss of vision
 - metamorphopsia-Amsler grid
 - scotomata
 - no APD



Dry Macular Degeneration

Sudden Loss of Vision


- Age-Related Macular Degeneration (AMD)
 - Treatment
 - vitamins-A, C, E, zinc
 - delays progression
 - fluorescein angiogram
 - laser
 - newer modalities of laser, intravitreal steroids



Wet Macular Degeneration

Sudden Loss of Vision

- Age-Related Macular Degeneration (AMD)
 - Keys
 - will not go totally blind
 - 20/400 endpoint
 - use of low vision aids

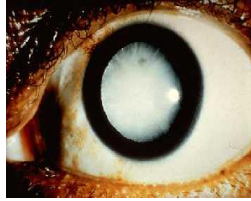


Sudden Loss of Vision

- Psychogenic
 - hysteria (conversion)
 - malingering (workman's compensation)
 - exam not consistent with findings
 - exam is not possible

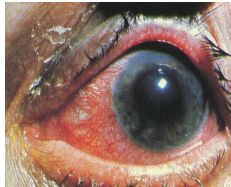
Sudden Loss of Vision

- Sudden notice of longstanding vision loss
 - amblyopia
 - cataract
 - vitreous hemorrhage
 - glaucoma



Sudden Loss of Vision

- Sudden, painful loss of vision (red, painful eye)
 - acute glaucoma
 - corneal ulcer
 - scleritis



Sudden Loss of Vision

- Sudden, transient, painless loss of vision
 - TIA
 - migraine
 - arrhythmia
 - hypoglycemia

Sudden Loss of Vision

- Sudden, binocular loss of vision
 - pituitary tumor/aneurysm/apoplexy
 - arrhythmia
 - chiasmal disease



Sudden Loss of Vision

- Prolonged, sudden, monocular, painless loss of vision
 - retinal vessel occlusion
 - optic neuropathy
 - retinal detachment
 - vitreous hemorrhage
 - age-related macular degeneration
 - psychogenic
 - sudden noise
