

# RETINAL ARTERY OCCLUSION

**DEFINITION** --usually emboli to retinal artery

-Central Artery (RAO)-monocular vision loss

-branch artery (BRAO)-visual field loss in one eye

**-MEDICAL EMERGENCY**

-Delayed Treatment-Possible Permanent Blindness

-Immediate Treatment Increases Prognosis, Though Poor, Due to Etiology

## **PATHOPHYSIOLOGY**

- emboli- atrial fibrillation, carotid disease
- thrombus
- endarteritis
- angiospasm
- hydrostatic arterial occlusion
- coagulation disorder
- carotid dissection
- retro bulbar hemorrhage
- increased intraocular pressure

## EPIDEMIOLOGY

- 8 1/2/1,000,000 people/year
- 1.5% population/over 10 years

## **CLINICAL**

### Symptoms

-Blurred Or Loss of Vision --  
All or Part of One Eye

## **EXAM**

Visual Acuity

Visual Field Exam

Pupillary Reflex -- look for RAPD

Retina Exam With Dilated Pupil-

-with direct/indirect endoscopy-

1-Cherry red spot with surrounding whitening, -may take hours

2- possible ground-glass retina, emboli seen

3-later pale optic disc

w/BRAO-box car blood column

**EXAM**-continued

Intraocular Pressure  
Flourescein Angiography  
Retina Photography  
Electroretinogram

## **GENERAL EXAM**

1. EKG monitor-atrial fibrillation
2. Echocardiogram
3. Carotid ultrasound
4. Blood pressure
5. Possible sed rate, blood culture, coagulation studies.



## **TREATMENT**

Ocular Massage- direct pressure-10  
seconds, then release-repeat several times  
Pressure causes arterial dilation  
Sudden drop in IOP increases flow  
Massage may dislodge embolus to periphery

## Anterior Chamber Paracentesis

Less than 24 hour symptoms  
0.2 mL of aqueous humor removed  
3 mm decrease in intraocular pressure  
decr IOP causes incr. perfusion and possible  
peripheral movement of the emboli  
27gauge needle  
tuberculin syringe