FOUNDATIONS of Emergency Medicine

Foundations Frameworks

Approach to Vision Loss

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Acute Unilateral Vision Loss

Is it painful?

Yes

Ocular trauma?

Yes

Globe Rupture
Visible trauma to the eye
Check slit lamp exam (Seidel sign), do NOT check IOP
Tx: emergent ophtho consult

Orbital Hematoma
Proptosis and periorbital trauma
Check CT face/orbits
Tx: emergent ophtho consult, lateral canthotomy

No

Glaucoma
Acute (painful) v. Chronic (not painful)
Check IOP (> 20 mmHg)
Tx: miotics, lower IOP

Giant Cell Arteritis
Age > 50, usu. female
Check ESR, temporal tenderness
Tx: steroids

Iritis
H/o autoimmune dz or recent trauma
Check slit lamp exam (cell/flare)
Tx: pain control, steroids (autoimmune)

Optic Neuritis (*may be painless)
H/o MS, usu. young women
Check pupillary reflex, ocular US
Tx: IV steroids

*Remember that these diagnoses are not mutually exclusive- e.g., a trauma patient could have a traumatic iritis (painful) *and* a traumatic retinal detachment (painless)

No

Central Retinal Artery Occlusion
Stroke of the eye, usual stroke risk factors
Check fundoscopy (pale retina)
Tx: limited- consider globe massage, acetazolamide, IR intra-arterial tPA

Central Retinal Vein Occlusion
DVT of the eye
Check fundoscopy ("blood and thunder" hemorrhages)
Tx: anticoagulation, lower IOP, steroids

Occipital Stroke
Look for usual stroke risk factors, symptoms are binocular
Check CT/CTA, MR, EKG, glucose
Tx: tPA, ASA

Vitreous Hemorrhage
Suggests underlying pathology (e.g., supratherapeutic INR)
Check IOP, pupillary reflex, ocular US
Tx: treat underlying cause

Retinal Detachment
H/o "flashers and floaters," "curtain falling over vision"
Check visual fields, ocular US
Tx: emergent ophtho consult