

GI problems and Eye

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Is there a link?

- Yes, there is a link but no one what to know.
- At least 4 conditions related to “eye”, ie:
 - Crohn’s disease
 - Ulcerative Colitis
 - Wilson’s disease
 - Whipple’s disease
 - Vitamin A deficiency

Crohn’s disease

- HLA-B27 positive
- 6% has ocular manifestations
 - Episcleritis (more more than Scleritis)
 - Scleritis
 - Iritis / Anterior uveitis
 - Keratopathy (rare)
 - Night blindness (rare)

Ulcerative Colitis

- 5 to 8% patients
 - Episcleritis
 - Iritis / Anterior uveitis
 - Mild idiopathic conjunctivitis

Wilson’s disease

- Kayser-Fleischer ring – copper deposition in Descemet’s membrane in the cornea, which is found at the limbus.
- Absent in 15% to 50% of patients with exclusively hepatic involvement and in presymptomatic patients.
- Most patients with a neurologic or psychiatric presentation of Wilson disease will have Kayser-Fleischer rings; only 5% do not.
- Kayser-Fleischer rings can be found in other chronic liver diseases like primary biliary cirrhosis, primary sclerosing cholangitis, autoimmune hepatitis, or familial cholestatic syndromes.
- Deposition of copper in Iris also.
- Sunflower Cataract – copper deposit in lens.
- A vertical supranuclear gaze disturbance may be seen.

Whipple’s disease (1)

- A rare, multisystemic disease caused by the bacillus *T. whipplei*.
- It was first described in 1907 as an intestinal lipodystrophy.
- A clinical syndrome of migratory arthritis, diarrhea, and weight loss.
- Commonly affects white males in the fourth to sixth decades

Whipple's disease (2)

- Less than 5% of patients with Whipple's disease.
- Uni/bilateral with panuveitis and retinal vasculitis.
- Both anterior uveitis and moderate vitreitis are present.
- Unique white granular crystalline deposits were seen at the pupillary margin.
- Diffuse chorioretinal inflammation and diffuse vasculitis, typically in the perifoveal and midperipheral areas, are accompanied by hemorrhages and retinal vascular occlusions.
- Optic nerve involvement can occur, with prolonged involvement leading to optic atrophy.
- Ocular involvement typically is secondary to central nervous system involvement.
- Nystagmus, oculomasticatory myorhythmia and a progressive supranuclear-like palsy.

Vitamin A deficiency

- May be related to Crohn's disease due to long term malabsorption.
- Reversible.

How would you approach?

- Please take a good history.
- Please check the patient's visual acuity.
- Please have your direct ophthalmoscope and pen touch ready.
- You may need pupil dilating drop (e.g. Cyclogyl @ Cyclopentalate 1% drop). (controversial)

Eye History

- Please try to rule out inflammatory bowel diseases, Wilson's, Whipple's and Vitamin A deficiency in your overall history.
- In your eye history, please appreciate:
 - Episcleritis: discomfort around the corners of the eye. May be watery but no discharge.
 - Scleritis: tenderness especially on compression at the injected area. Pain can be severe and unbearable. No discharge but watery.
 - Iritis / Anterior uveitis: Photophobia. Watery but no discharge.
 - Conjunctivitis: Sticky eyes especially at the early morning. Discharge present. May be associated with contact lens cases.

Visual Acuity

- Please check the patient's visual acuity.
- Remember, bad visual acuity can also be tested.
- Please check pinhole visual acuity.

Inspection (1)

- Try to appreciate the different presentation of episcleritis, scleritis, iritis and conjunctivitis.
 - Episcleritis: more localised redness (injection) around the edge of either canthus, it may extend to limbus.
 - Scleritis: more centralised localised injection, it can be nodular or necrotising.
 - Iritis / Anterior uveitis: localised injection surrounding the limbus (360°). The affected pupil is smaller.
 - Conjunctivitis: diffuse injection may come with discharge.

Inspection (2)

- You can turn your direct ophthalmoscope to '+10', it will act as a loupe to magnify your image.
- You may see Kayser-Fleischer rings on the corneal.

Examination

- You need to shine your pen torch toward both pupils to appreciate the smaller pupil in the case of iritis / anterior uveitis.
- You need to check the pupil reflex to ensure the pupil reflex pathway is intact.
- You may see cataract with your direct ophthalmoscope.
- In Whipple's disease, you need to dilate the pupil to see the fundus but the view will be limited. (controversial)

Management

- GP acts as the first defence.
- With anterior segment injection, it is reasonable to give antibiotics drops as the first line treatment.
- If you are confident to diagnosis iritis / anterior uveitis or there is prolonged red eyes, please refer to ophthalmologist.
- If patient with red eyes and visual acuity is low, please refer to ophthalmologist.

Finish





