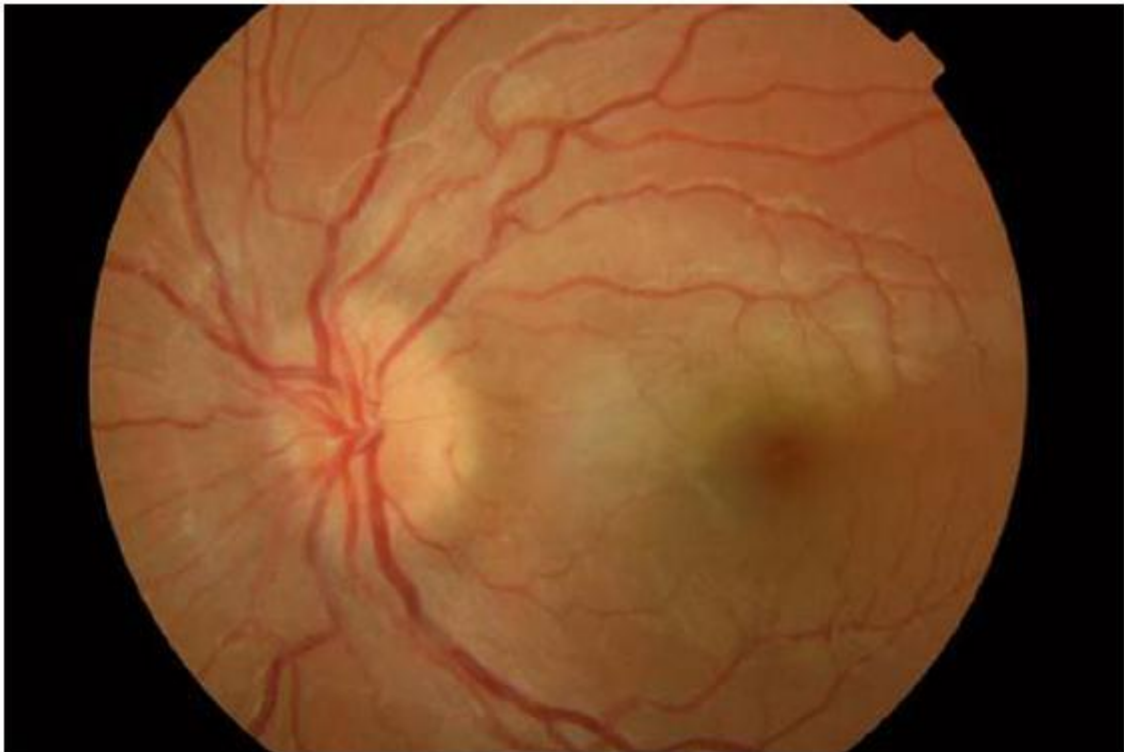
Health and Social Care

Optometric Management of Suspect Swollen Discs



Referral Pathway

1. **Sick patient with suspicious discs – directly to A&E** with a referral letter. Include request in the referral letter that A&E clinician contacts Eye Casualty directly for advice – add copy of disc photos +/- OCT (if possible).
2. **Well patient with disc swelling and visual change and/or diplopia** – urgent phone call to Eye Casualty for urgent appointment. Do not refer on CCG without phoning first.
3. **Well patient with disc swelling and normal vision –** phone call to Eye Casualty for urgent appointment
4. Well patients with suspicious discs (i.e. not sure if swollen eg 'possible blurred disc margins') – urgent referral to ophthalmology outpatients

In all cases, if in doubt phone Eye Casualty for advice.

Referral Information

If referring to A &E include in letter detailed history, in particular date of onset of symptoms and include, where possible, copies of fundus photographs or OCT scans (RNFL analysis)

Reminder: if referring to Eye Casualty always write a referral letter for the patient take even though you have spoken to a clinician, include as above.

Guidance on Optometric Investigation.

Key Information to Know:

- Details on headaches, if worse in the morning, do they wake px from sleep; association with nausea/vomiting.
- Vision/Transient visual obscurations - unusual to have vision loss unless advanced papilloedema but patients can have transient visual loss (transient, lasting seconds, greying out of vision with postural changes e.g. getting up suddenly or sometimes with a change in direction of gaze) . [NB this is different to amaurosis fugax where there is sudden painless complete loss of vision (goes black) usually lasting 5-20 minutes followed by recovery; usually older patients with vascular risk factors]
- Pulsatile tinnitus (whoosing in time with pulse) usually worse on lying down
- Diplopia - 6th nerve can be affected- is a false localising sign in raised intracranial pressure; a compressive lesion may also cause a CN VI nerve palsy (+/- other cranial nerve palsies); look for esotropia worse on distance and abduction to the side of the CNVI palsy as well as abduction deficit (eg. in a right CNVI, expect right esotropia worse in distance and on right gaze)

- Colour vision is usually normal in the early stages but colour testing can be used to differentiate a swollen nerve due to an inflammatory disorder (test with ishihara or look for red de saturation); colour vision is affected if disc swelling from any cause has cause optic nerve damage.
- Not usually an RAPD in early stages as papilloedema casues optic nerve dysfunction when very advanced.
- HVF if possible

Important: ask if the patient has seen their GP or another clinician about the symptoms. ** consider adding more advice on communication with GP

- If regular headaches, advise to see GP to help with management
- If amaurosis fugax – needs very urgent referral to TIA clinic for further investigation – GP can do this (if no disc swelling and examination normal); GCA also needs to be excluded;
- If amaurosis fugax and disc swelling – urgent eye casualty referral

Clinical signs to look for:

- Optic nerve assessment, disc swelling typically starts nasally and progresses.
- Veins can become dilated and tortuous.
- Blood vessel obscuration near the disc due to oedema.
- Paton's lines – chorioretinal folds which occur around the disc.
- Disc hyperaemia
- Dilated surface blood vessels on disc
- Obscuration of disc blood vessels (small or large)
- Visual field testing – blind spot can become enlarged (in papilloedema), nasal field then can become affected as condition progresses; any field defect possible with optic nerve dysfunction when present.
- OCT to monitor RNFL - look for oedema (lazy v sign) or disc drusen.

Definitions

- ***Papilloedema:*** 'disc swelling secondary to raised intracranial pressure'
    - At baseline assessment when discs are swollen the cause is unknown but papilloedema needs to be excluded
        - Usually bilateral although can be unilateral or assymetrical
- ***Disc swelling:*** descriptive generic term for swollen discs due to any cause including papilloedema

Common causes of pseudo-papilloedema:

- ONH drusen
- Hyperopic eye – small ONH, crowded disc
- Tilted disc.
- Myelinated nerve fibre layer

Risk factors to consider:

- IIH (idiopathic intracranial hypertension);
    - More common in females 20-40, child bearing age.
    - Associated with recent weight gain.
    - Other causes first need to be excluded eg brain tumour, venous sinus thrombosis, drug related etc

Sick patients

- **Describe sudden onset severe headache (thunderclap)**
- **Severe headaches worst in mornings or waking from sleep**
- **Drowsy, sleepy**
- **Fever +/- rash**
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References:

- Moglione, A.K. and Marunde E. Be prepared for papilledema, Review of Optometry. **https://wwwreviewofoptometry.com/article/be-prepared-for-papilledema**
- Smethurst S. The hidden dangers of papilloedema. April 2020 Acuity (2). **https://www.college-optometrists.org/acuity/all-issues/spring-2020/2020-04-thehiddendangersofpapilloedema**
- Blanch RJ, Horsburgh J, Creavin A, et al (2019) Detection of Papilloedema Study (DOPS): rates of false positive papilloedema in the community. Eye (33) 1073-1080.