Suspected Papilloedema/Raised ICP Pathway

Raised intracranial pressure is suspected not just based on headaches but when accompanied by other objective symptoms and signs *





Document the following

1) History *-refer to info box

- 2) Weight in kg and BMI, blood pressure, pregnancy test if relevant
- 3) Full visual assessment (visual acuity using Snellen's, fundoscopy, visual fields, eye movements)
 - 4) Neurological examination

WITHIN 24 HOURS- as inpatient or urgent day case in the acute care trust. Admit urgently to your hospital if vision affected

Ophthalmology assessment

(to be repeated for comparison at every follow up)

Record visual acuity, intraocular pressure, formal visual fields, dilated fundoscopy, OCT.

Urgent senior review if uncertainty

NO PAPILLOEDEMA

- If headaches, diagnose primary headache syndrome and manage as per Walton centre secondary care headache pathway ^
- Ophthalmology follow up if indicated
- Unlikely to need neurology input

Inpatient Lumbar puncture (LP)
within 24 hours (opening pressure is
measured in the recumbent position and

CONFIRMED PAPILLOEDEMA

NORMAL SCAN#

send full CSF analysis) ~

ABNORMAL SCAN #

CT brain + venogram

OR

MR brain + venogram

with on call neurologist or neurosurgeon

Discuss urgently

(e.g. Tumour, venous thrombosis)

CSF opening pressure <25 cm, Normal CSF constituents

Less likely to be papilloedema

Reassessment by ophthalmology for alternative causes of disc swelling like optic neuropathies or vascular causes. Keep as inpatient if vision affected and discuss with neurology and ophthalmology

CSF opening pressure ≥25 cm, Normal CSF constituents

Typical patient for IIH+

DIAGNOSE IIH

Any CSF pressure with

Abnormal CSF

constituents

Consider alternative causes

- Infection, inflammation, malignancy, systemic disorders
- Discuss with on-call neurologist

* Definitions

Typical IIH= females of childbearing age with a BMI >30 or recent weight gain Not typical for IIH= not female, not of childbearing age, low BMI, no recent weight gain, systemically unwell, active malignancy/immunocompromised

IIH (Idiopathic Intracranial Hypertension) Diagnostic Criteria

- A = Papilloedema
- B = Normal neurological examination (except 6th nerve palsy)
- C = Normal brain parenchyma
- D = Normal CSF constituents
- E = Elevated CSF opening pressure of ≥25 cm CSF

*History

Not typical

patient for

IIH*

- Description of new headache
- Visual obscurations (transient loss of vision on Valsalva manoeuvres or change in posture)
 Pulsatile tinnitus
- True diplopia

Previous migraine headaches Regular and new medication Recent change in weight

^https://www.thewaltoncentre.nhs.uk/pathways.htm

- # Venous stenosis, empty sella, optic nerve sheath distension are NOT abnormalities nor diagnostic features on their own. These are very frequently associated with raised ICP and also seen in normal population
- Normal CSF opening pressure in the recumbent position is between 9-25 cm of CSF. At LP, take off enough CSF for analysis and bring closing pressure to around 15-18 cm of CSF

Idiopathic Intracranial Hypertension (IIH) Pathway The Walton Centre Excellence in Neuroscience **IIH diagnosed** Explain diagnosis to the patient Give information leaflet^^ Discuss that weight loss is the main treatment for IIH Aim for 15-25% reduction over 6-9 months Add acetazolamide for stabilising papilloedema and vision **VISION STABLE IIH FULMINANT IIH** Normal vision, mild papilloedema (see Visual acuity or fields affected / Higher info box) grades of papilloedema (see info box) Manage as OP Urgent discussion with on call Refer to neurology /RANA clinic, if neurology neurology not already involved. Copy Consider transfer to neuroscience centre discharge letter to neurologist and Consider repeat LP in the interim as a vision ophthalmologist stabilising measure Procedures are considered ONLY if vision is truly affected/deteriorating Regular ophthalmology Manage headaches assessments Address analgesia overuse Initially at 1-2 months interval. Start preventative treatments To continue until papilloedema consistently (see Walton centre secondary care Neurology/ resolves. Record and compare visual acuity, pathway^) **Ophthalmology to** eye movements and colour, automated visual fields, dilated fundoscopy, OCT refer and discuss fulminant and atypical cases at Acute Exacerbation of Headache in a ICP MDT at Walton patient with known IIH Centre **Deterioration in visual assessment:** Further medical Worsening papillodema compared to previous, management new visual field deficit / new 6th or 4th nerve palsy, **Lumbar Puncture** optic atrophy Venous sinus Assess vision and compare with stenting **CSF** shunting previous ophthalmology assessment Optic nerve sheath Record visual acuity, eye movements and colour, fenestration automated visual fields, dilated fundoscopy, OCT Lumbar drain can be considered as a bridging procedure while awaiting theatre slot for shunt/sten Repeat scans are not indicated unless there are new red flags LP NOT indicated if vision stable Resolving papilloedema/no new optic disc changes LP is not a treatment Improving acuity and fields for headaches Fulminant IIH/ Affected ^https://www.thewaltoncentre.nhs.uk/path **Vision Stable IIH** vision ^^https://www.thewaltoncentre.nhs.uk/patientleaflets/idiopathic-intracranial-hypertension-Normal visual acuity Reduction in visual acuity Acetazolamide- contraindicated in pregnancy and severe renal dysfunction; Normal visual fields (except Abnormal visual fields very common to have transient pins and

increase in blind spot)

Normal colour vision

Grade 1-2 papilloedema

Affected colour vision

Grade ≥3 papilloedema

The Walton Centre 'Suspected papilloedema/raised ICP and IIH pathway' compiled by Megan Prewett Dr Mona Ghadiri-Sani Miss Catherine MrMahon

is not a cause for concern.

needles in the initial stages of therapy which

https://jnnp.bmj.com/content/jnnp/89/10/1088.full.pdf