Monthly paediatric update newsletter for all health professionals working with children – put together by Dr Julia Thomson, Paediatric Consultant at Homerton University Hospital, London, UK. Housed at www.paediatricpearls.co.uk where comments and requests are welcome!

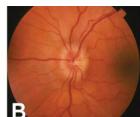
LESSONS FROM THE FRONT LINE

A 6-year-old boy was taken to a routine appointment at the high street optician because of a few weeks of occasional mild headaches. The optician noted blurred disc margins and the child was referred direct to Moorfields Eye Hospital where papilloedema was confirmed. An MRI and lumbar puncture (opening pressure of 39cmH₂O (normal is up to 28cmH₂O)) at Homerton then confirmed **Idiopathic Intracranial Hypertension (IHH).**

Dr Ola Joseph, paediatric trainee, put this slide together to remind us of the features of IIH and of the importance of an eye test in children with headaches. There are 57 new cases of IIH in children per year in the UK, only 50% of them are obese. Support group: https://www.iih.org.uk/

This episode led me to ask – again – whether I am the only practising doctor who struggles with eye examination in children. For others in the same boat, the local optician and https://patient.info/doctor/examination-of-the-eye are our friends.





Idiopathic intracranial hypertension

What is it?

- IIH is a rare neurological condition characterised by raised intracranial pressure with no identifiable pathology
- Exact pathogenesis unknown
- Previously known as pseudotumor cerebri as features mimic a brain tumour, benign intracranial hypertension (but not benign!)

Who gets IIH?

- Typical- young, obese female post pubertal (also seen in adults with IIH)
- Atypical- prepubertal, usually not overweight

How does it present?

- Symptoms: headaches + visual disturbance most common.
 Fatigue, mood changes, retro orbital pain, neck pain, tinnitus less common
- Signs: papilloedema, cranial nerve VI palsy

Investigations

- Blood pressure (exclude malignant hypertension)
- Ophthalmology + Neurological exam
- MRI brain +/- MR venography
- Lumbar puncture: opening pressure: ≥ 28 cm H2O is elevated¹ + Normal CSF

Management

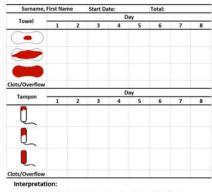
- Refer to neuro-ophthalmology
- Aim is to prevent permanent visual loss, reduce headache burden
- Weight loss if obese/overweight
- Medical: acetazolamide (monitor U+E, blood gas → risk of metabolic acidosis)
- Surgical: rare, CSF diversion
- Regular ophthalmology review to assess if papilloedema responding to treatment

Take home points

- Ophthalmology/opticians review if persistent headaches
- IIH is associated with obesity so calculate BMI. Remember can be atypical

1. Cleves-Bayon C. Idiopathic Intracranial Hypertension in Children and Adolescents: An Update. Headache. 2018. (level of 28cmH2O is non obese, non sedated child, cut off is slightly higher in obese, sedated children

Menorrhagia in adolescents with thanks to Dr Claire Mulvenna, paediatric trainee, for tackling an issue that not many paediatricians know much about.



PADS	
Lightly Soaked	+1 Point
Moderately Soaked	+5 Points
Heavily Soaked	+20 Points
TAMPO	NS
Lightly Soaked	+1 Point
Moderately Soaked	+5 Points

Heavily Soaked +20 Points

CLOTS

FLOODING

+1 Point

+5 Points

Any +5 Poin

Any

Small

Large

A score of >100 points indicates menstrual loss >80ml/cycle

Figure 1. Pictorial bleeding assessment calendar (PBAC). Adapted with modifications from Higham JM, O'Brien PM, Shaw RW. Assessment of menstrual blood loss using a pictorial chart. Br J Obstet Gynaecol. 1990;97(8):734–739. (16)

Definition of heavy menstrual bleeding: \geq 80ml blood loss in each period, having periods that last longer than 7 days, or both (see infographic).

- Heavy menstrual bleeding is the most common cause of iron deficiency anaemia in adolescent girls.
- > Anovulatory cycles in the first few years after menarche might be responsible for dysfunctional uterine bleeding but this should be a diagnosis of exclusion as about 20% of women with menorrhagia have an underlying bleeding disorder.
- > von Willebrand disease (vWD) affects 1-2% of the general population but 3-36% of women with menorrhagia.
- > 32 to 100% of women with vWD have menorrhagia.

Investigations: FBC, von Willebrand testing and tests for other bleeding disorders including platelet function defects (around 50% of patients with any type of bleeding disorder have menorrhagia)

First line management: NSAIDs, or tranexamic acid during menses

Second line treatment: oral contraceptive pill.

For patients with ongoing heavy menstrual bleeding that is difficult to manage in the community, a referral to gynaecology is warranted.

For iron deficiency anaemia associated with menorrhagia, the first line treatment is iron tablets and increasing the intake of dietary sources of iron.

Heavy periods self-assessment tool on NHS website for patients - https://www.nhs.uk/conditions/heavy-periods/

Academic resource for this article:

http://pgnrc.sbmu.ac.ir/uploads/The_Adolescent_with_Menorrhagia.pdf

What is Psychological First Aid (PFA)?

Dr Isabel Wilson explains ...

"Humane, supportive & practical assistance to fellow human beings who recently suffered a serious stressor"



PFA is designed to reduce the initial stress of traumatic events and to enable resilience and long-term coping. Aimed initially at survivors of natural disasters and terrorism, the <u>8 core actions</u> are applicable wherever people have been traumatised. <u>Click here</u> for tips on how to acutely stabilise a very distressed person. Anyone can do it, anywhere.

Further PFA Resources:

- Future learn course: https://www.futurelearn.com/courses/psychological-first-aid-covid-19
- National Child Traumatic Stress Network: www.nctsn.org/treatments-and-
 National Child Traumatic Stress Network: www.nctsn.org/treatments-and-
- practices/psychological-first-aid-and-skills-for-psychological-recovery/about-pfc WHO quidance: https://www.who.int/publications/i/item/9789241548205

PIMS-TS has meant we have had to look up paediatric reference ranges for troponin, fibrinogen etc. we never usually request. I thought the document below which features normal paediatric ranges for all sorts of tests might be useful for GPs.

NORMAL RCPCH REFERENCE RANGES

https://www.rcpch.ac.uk/sites/default/files/rcpch/HTWQ/Reference%20ranges%20 Jan%2018.pdf

NEW RCPCH REFERENCE RANGES- 2016

Ranges vary between populations and age groups and it is important to always check the reference anges. If there is no age-specific paediatric range, use the adult range.

140 - 186 g/ 8 days – 3 mo 3 months - 4 years 110 - 140 g/l 5 – 12 years 0 – 6 days 115 - 140 g/ 3.0 - 10.0 x 10⁹/l 8 days – 6 months 7 months – 12 year 6.0 - 15.0 x 10⁹/l 5.0 - 12.0 x 10⁹/l 150 - 400 x 10⁹/l 27 - 33 pg 150-450 x 10⁹ /I 31 - 37 pg 0 = 3 months 27 - 33 pg 23 – 31 pg 32 – 35 g/d 4 months - 12 years 32 - 35 g/dl