



MUM'S WORRIES

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Topics:



• Vomiting in infancy

• Fits and funny turns



• Headaches

Vomiting in Infancy

- Parental concern about infant crying is the most common reason for GP consultation in the first months of life
- Regurgitation and possetting are common in otherwise healthy infants
- Parental responses to crying and unsettled behaviours in their infants are likely reflective of their social supports and experience.



Case 1 - problem

- 13 week old girl.
- Born full term, normal vaginal delivery, good start.
- Vomiting 'since birth'. Otherwise well.
- Birth weight 91st centile, weight now 50th centile

- What else would you like to know?



Case 1- history/examination

- Always bottle fed
- Mum has tried Cow and Gate, SMA, SMA staydown, C+G comfort – all no to very little effect
- Taking 6oz feeds 7 feeds/day – 217 mls/kg/day
- Normal stools.
- Normal examination



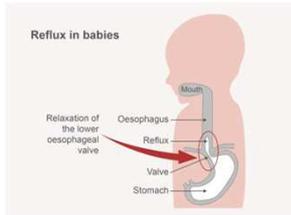
Gastro Oesophageal Reflux

- Usually presents in the first couple of weeks after birth.
- Worse with formulas compared to breast milk
- **Effortless**
- After a feed
- When the baby is lying flat



Management: reassurance

- It's normal:
- Little evidence that acid plays any role in patterns of unsettledness and irritability in infancy.
- Self-resolution of physiological reflux by 12-15 months in almost all infants



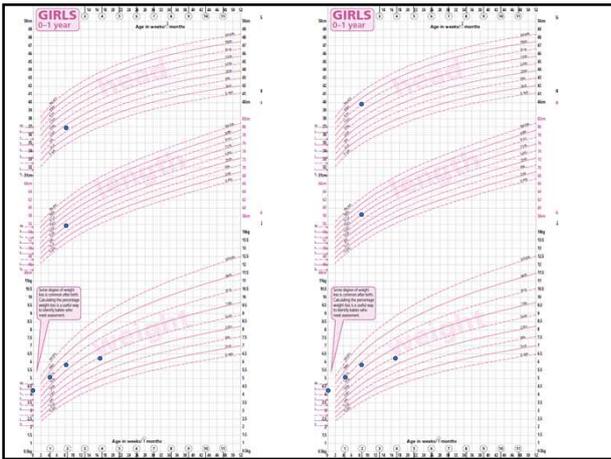
Efficacy of proton pump inhibition

- Placebo-controlled cross-over study
- 30 infants with median age of 4.8 months with increased oesophageal acid exposure (as indicated on 24 hour oesophageal pH studies) or histological evidence of oesophagitis.
- Treatment: omeprazole followed by identical placebo or placebo followed by omeprazole.
- Infants receiving omeprazole had a significant reduction in their oesophageal acid exposure compared to placebo (-8.9% ± 5.6% vs -1.9% ± 2.0%; p<0.001).
- However, despite this there was **no difference in parent-recorded symptoms** between the two groups of infants. Furthermore, symptoms significantly improved with time compared to baseline during treatment with both placebo and omeprazole.

Moore DJ, Tao BS-K, Lines DR, et al. Double-blind placebo-controlled trial of omeprazole in irritable infants with gastroesophageal reflux. J Pediatr. 2003;143:219-23

Management:

- Reduce feeds to 120 mls/kg/day
- Positioning
 - Full upright position
 - Left side-down and prone position
- Consider thickener
- Consider early weaning
- If GORD
 - Consider Gaviscon and/or Ranitidine



Case 2

- 12 week old boy
- Vomiting after feeds
- Very unsettled all the time
- Bowels opening 3-4 times a day, loose, no blood

- What further questions do you have?

Case 2

- Vomiting since age 6 weeks
- Initially breast fed, after 1 month bottle fed
- Growth: birth weight on 50th centile, current weight 25th centile
- Examination: retching while lying down. Mild eczema.
- Family history: father has asthma, mum has hay fever



Cow's Milk Protein Allergy

- An immune-mediated allergic response to proteins in milk
- When delayed onset (2-72 hours) it is Non-IgE mediated
- **One or more of these symptoms (usually non acute)**
 - Severe colic
 - Vomiting-'Reflux' – GORD
 - Food refusal or aversion
 - Loose or frequent stools
 - Perianal redness
 - Constipation
 - Abdominal discomfort
 - Blood / mucus in stools (in an otherwise well infant)
 - Pruritus, erythema
 - Significant atopic eczema
- Can develop in exclusively breastfed infants



Cow's Milk Protein Allergy: diagnosis & management

- **Formula fed**
 - Trial of extensively hydrolysed formula
- **Exclusively breastfed**
 - Exclude cow's milk containing foods from maternal diet for 2 – 4 weeks and continue breastfeeding
 - Prescribe for mother: *Calcichew D3 Forte chewable tablets 2 daily*
- **Perform Home Challenge** using cow's milk to **confirm diagnosis**, 4-6 weeks after starting Elimination Diet
- If symptoms return, CMPA confirmed



Vomiting in Infancy - summary

It is common and causes distress and anxiety
Only 5% is thought to be pathological

- | | |
|---|---|
| <ul style="list-style-type: none"> • Feeding History <ul style="list-style-type: none"> – Age of onset – Breast or bottle fed – Associated features – Colour – Triggers | <ul style="list-style-type: none"> • Physical Exam <ul style="list-style-type: none"> – Observation: alert, unsettled, unwell? – Hydration – Inspect abdomen – Auscultate – Palpate |
|---|---|



Please remove nappy!!!



Fits and funny do's



- Symptoms of anxiety are common among parents of children with epilepsy.
- Possible correlates of parental anxiety are seizure frequency and use of antiepileptic drugs (AEDs)

Epilepsia. 2016 Apr;57(4):529-37. Parental anxiety in childhood epilepsy: A systematic review. Jones C, Reilly C

Case: 12 yr old girl, walking to school, collapsed to the ground, stiff followed by jerking of all limbs. Send to ED, history taken, investigations done.

Diagnosis:

Hospital A

- Probable epileptic seizure

Hospital B

- Probable simple faint

Misdiagnosis – a real problem

Rate of misdiagnosis of childhood epilepsy "may not be unusual"

Caroline White-London

A misdiagnosis rate of almost one in three cases of childhood epilepsy, made by a consultant paediatrician in Leicester, "was not to be missed" concludes an 18-month investigation of his clinical practice.

But more than 500 families are pursuing legal action against the trust involved, and dozens of parents continue to press for an independent inquiry.

Dr Andrew Hobden was suspended from his post as Leicester Royal Infirmary in May 2010, after an internal review of children's services at the hospital and mounting numbers of complaints from parents and clinicians (BMJ 2010;342:f122). Dr Hobden, who was not a paediatric neurologist, had looked after more than 9000 children since his appointment in 1990 and had treated 2000 of them for epilepsy.

The final report, from the



Dr Andrew Hobden is considering returning to a different speciality

Hobden's clinical practice "fell short of standard," the details would be formally recorded as a

- Epilepsy is frequently misdiagnosed in children
- Perhaps up to 30% in non-specialist setting

Syncopal or epileptic seizure?

- Syncopes - events caused by "a sudden reduction in cerebral perfusion by oxygenated blood".
- Often specific immediate **trigger** (getting out of bed, brushing hair, sudden surprise, orthostatic stress)
- Auras include light-headedness, visual disturbance, feeling hot and sweaty, and nausea
- Post-syncopal symptoms include nausea, vomiting, headache and confusion and last generally < 30 min.

When you think it is an syncope, it probably is one



But do that ECG

Case: 1 yo girl with 'seizures'

- 3 episodes
- Short cry followed by LoC and colour change. Symmetric jerking. Lasted for 'ages'.
- Post ictal: quiet and fell asleep for several hours.

Anything more you want to know?

Diagnosis?

Breath-holding spells



- Types:
 - Cyanotic spell - caused by a change in the child's breathing pattern, usually in response to feeling angry or frustrated. It's the most common type.
 - Pallid spell is caused by a slowing of the child's heart rate, usually in response to pain
 - Combinations of these.

Breath-holding spells

- Age: 6 months to 6 years with 76% occurring between 6 and 18 months of age.
- 20% -30% of children have an affected family member.
- Children who have had breath-holding attacks have a higher incidence of syncope as adolescents

Treatment:

- iron supplementation may be useful in reducing the frequency and severity of breathholding attacks, esp. when there is iron deficiency.



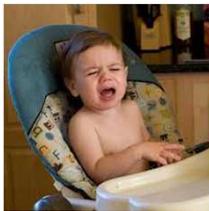
Case : 2 year old girl

- Symptoms:
 - Staring, blank look
 - Dystonia/ abnormal movements
 - Sweating, seems ‘red’ and in pain
 - Occasionally smacking or grunting noise

➤ Is this epilepsy?

History – triggers?

Occurs when having dinner, sitting in high chair



Diagnosis: Gratification disorder or “infantile masturbation”

- Relatively common
- Has been reported in children as young as 3 months
- Commonly presents between 1-3 yrs of age
- Home video recordings important aid in making diagnosis (<https://youtu.be/ENRF3uE1QDk>)
- Reassurance

Case 3: 14 day old boy

- Rhythmic myoclonic movements lasting for 10 – 30 min.
- Noticed on several occasions
- PMH: unremarkable

- Parents very concerned. HV who saw episodes informs you 'it does not look normal'

➤ Questions?

Detailed history

- Only noticed when child is drowsy or asleep
- Face not involved
- Movements stop when child is woken up
- Swaddling seems to help!



- Benign neonatal sleep myoclonus
 - Common and completely innocent
 - No risk factor for developing a epilepsy
 - Generally resolves at 3 months of age
 - Myoclonus may be generalised or unilateral

Case 4: 10 yo boy

- Since couple of weeks
 - blinking with eyes noted
 - Jerky movements of arms, right >> left
 - Remains conscious
 - Neuro exam normal
 - Electrolytes normal

- ? Partial epilepsy

10 yo boy - history

- One episode was noted when watching TV and playing cards.
 - Note: cards did not go all over the floor.

➤Diagnosis ?

Simple tics

Rapid and repeated involuntary movements incl.: repeated eye blinking, shoulder shrugging, clearing of the throat, grimacing, coughing or twisting of the neck.

Usually same movement over and over again but can change from one form to another .

More noticeable when concentrating or relaxing. Increase with stress, anxiety or tiredness. Never present during sleep.

Common: affect up to 20 percent of children. Tends to start between 7 and 9 years of ages, much more common in boys. Often positive family history.

Management: reassurance & advice to 'ignore'. Tics generally get better with time.

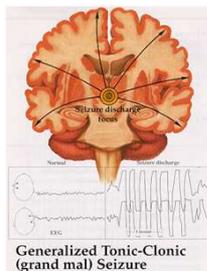


Summary

- History is key to diagnosis
- Video recording of event helpful
- Epilepsy does not get 'worse' with treatment delay.

- Un-diagnosing is harder than diagnosing

- **Keep child safe – 5 minute rule**



Headaches



Headaches are common

- In 1037 school children between the ages of 12 and 15 years (Exeter schools)
 - Twenty per cent of the study population had headache one or more times a week
 - Poorer quality of life than that of children with asthma, diabetes, or cancer.
 - An average of 0.6 school days lost in a 3-month period across all school children.

Br J Gen Pract. 2009 Sep;59(566):678-81

Headaches cause high levels of anxiety

- Why worry?
 - Rarely represents serious underlying disease
- Brain tumours
 - Incidence rate < 5 / 100.000 (0.3% of all headaches)
 - Around 1/5 initially being misdiagnosed as having a primary headache.
 - The time to diagnosis for intracranial tumours was longer than for many other childhood cancers
- However, headache alone is rare presentation:
 - Non-localising features (e.g. non-specific symptoms such as lethargy, fatigue, drowsiness, appetite loss, irritable, failure to thrive) far more common than localising signs which occur late in the disease process
 - Often repeat attendances with similar symptoms or a recent history of rapid symptom progression causing parental concern

Chu T, Shah A, Walker D, et al. Arch Dis Child 2015; 100:1115 - 22

10 year old boy



- Headache since 6 months
- 1/week
- Last about 12 hours
- Throbbing pain, stops activities
- Mainly unilateral
- Warning signs: zigzag lines for 5-10 minutes
- Other symptoms: nausea
- Relieving factors: sleep and paracetamol
- Examination: normal

- What is the pattern?
- What is the diagnosis?

Diagnosis of tension-type headache, migraine and cluster headache

Headache feature	Tension-type headache	Migraine (with or without aura)	Cluster headache
Pain location ¹	Bilateral	Unilateral or bilateral	Unilateral (around the eye, above the eye and along the side of the head/face)
Pain quality	Pressing/tightening (non-pulsating)	Pulsating (throbbing) or banging in young people aged 12-17 years ²	Variable (can be sharp, boring, burning, throbbing or tightness)
Pain intensity	Mild or moderate	Moderate or severe	Severe or very severe
Effect on activities	Not aggravated by routine activities of daily living	Aggravated by, or causes avoidance of, routine activities of daily living	Restlessness or agitation
Other symptoms	None	<ul style="list-style-type: none"> • Unusual sensitivity to light and/or sound or nausea and/or vomiting. • Aura: symptoms can occur with or without headache and; are fully reversible, develop over at least 5 minutes, last 5-60 minutes. Typical aura symptoms include visual symptoms such as flickering lights, spots or lines and/or partial loss of vision, sensory symptoms such as numbness and/or pins and needles; and/or speech disturbance. 	On the same side as the headache: <ul style="list-style-type: none"> • Red and/or watery eye • Nasal congestion and/or runny nose • Swollen eyelid • Forehead and facial sweating • Constricted pupil and/or drooping eyelid
Duration of headache	30 minutes-continuous	4-72 hours in adults 1-72 hours in young people aged 12-17 years	15-180 minutes
Frequency of headache	< 15 days per month ≥ 15 days per month for more than 3 months	< 15 days per month ≥ 15 days per month for more than 3 months	1 every other day to 8 per day ³ , with remission ⁴ >1 month
Diagnosis	Episodic tension-type headache Chronic tension-type headache ⁵	Episodic migraine (with or without aura) Chronic migraine (with or without aura)	Episodic cluster headache Chronic cluster headache

¹ Headache pain can be felt in the head, face or neck. ² Chronic migraine and chronic tension-type headache commonly overlap. If there are any features of migraine, diagnose chronic migraine. ³ Frequency of recurrent headaches during a cluster headache bout. ⁴ The pain-free period between cluster headache bouts.

Adapted from 'Headaches' (NICE clinical guideline 150), available from www.nice.org.uk/CG150

15 year old girl:



- Headaches since 4 years, every day, missing school
- Bad headache: throbbing, forehead, 12-24 hours, couple of times / month. Nausea. Sleeps helps.
- Less bad headache, like a tight band above eyes. Most days. No triggers or associated symptoms.

- What is the pattern?
- What is the diagnosis?

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14 year old girl:



- Since 2 - 3 months increasingly severe headaches – now every waking minute
- Bilateral, no obvious triggers
- Worse first thing in morning on waking
- Some nausea, some blurred vision
- Associated with tiredness, missing school
- Takes frequent painkillers

- What is the pattern?
- What is the diagnosis?

A daily headache

- Chronic tension headache
- Analgesic headache
- Idiopathic intracranial hypertension
- ICP
- Post traumatic headache
- Carbon monoxide poisoning
- EBV or CMV infection
- A mental health presentation

Summary

- History:
 - Classify: Location, Quality, Intensity, Effect on activities, Other incl. non-localising symptoms, Duration, Frequency,
 - Drug history
 - PMH: infantile colic, travel sickness, periodic syndromes
 - Family history
- Limited examination:
 - Growth and puberty
 - BP
 - Head/neck ROM
 - Neurological examination
 - Reflexes
 - Cranial nerves
 - Optic fundi?





Medication overuse headache

Headache developed or worsened while taking the following drugs for 3 months or more:

- 10 days per month or more triptans, opioids, ergots or combination analgesic medications on

or

- 15 days per month or more paracetamol, aspirin or an NSAID, either alone or in any combination

BIH or IIH

Common symptoms:

- Headache, nausea and vomiting, visual disturbances (diplopia, transient loss, blurring of vision, photophobia, visual field abnormality)
- Other: tiredness, lethargy, mood change, dizziness.

Diagnosis:

1. Raised CSF pressure in absence of intracranial mass or ventricular dilatation
2. Normal CSF
3. Normal neuro exam except VIth nerve palsy (10-50%) and papilloedema (? 2/3)

Epidemiology

1. Rare pre-pubertal
2. Highest prevalence 15-44 yo (12/100.000)
doubles if obese & female.

CARBON MONOXIDE POISONING – WHAT ARE THE SYMPTOMS?



You can't see it, taste it or smell it but it can kill quickly and with no warning.

Management

Headache diary:

1. to record the frequency, duration and severity of headaches
2. to monitor the effectiveness of headache interventions
3. as a basis for discussion with the person about their headache disorder and its impact.

Include the following in discussions:

1. a positive diagnosis, including an explanation of the diagnosis and reassurance re (no need for further investigation) (neuro imaging)
2. the options for management

Provide written and oral information about headache disorders, including information about support organisations.

Explain the risk of medication overuse headache to people who are using acute treatments for their headache disorder.

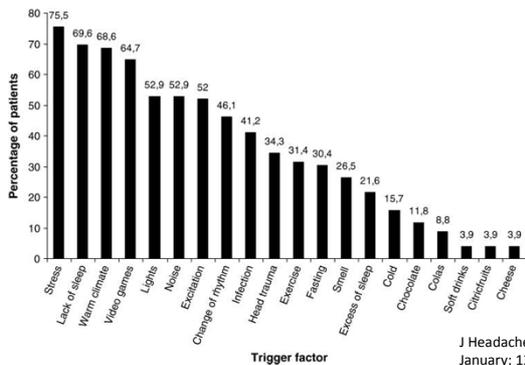
15 yo boy

- Headaches since 'years'
- Now increased in frequency and severity, starting to effect school attendance
- Headaches last for hours, no aura, no photophobia but sleep helps
- PMH: unremarkable, esp no car sickness
- FH: Grandmother has occasional migraine
- Reaching his targets in school and no change in behaviour noted ☺

Diary

- Average 3 headaches a week
- Missed 5 days school past month
- Reduced fizzy drink intake to 2 cans/week
- Headaches now 1-2 month
- 100 school attendance

The prevalence of triggers in paediatric migraine: a questionnaire study in 102 children and adolescents



J Headache Pain. 2012 January; 13(1): 61-65.

Treatment

Non drug therapy:

*Lifestyle changes
Psychotherapy (CBT in
50% effective!)
Relaxation therapy
Physiotherapy*

Drug therapy:

Analgesics
*Paracetamol.
NSAIDs.*

Antiemetics.

Triptans
*nasal sumatriptan
(oral < 12 yo)*

Prophylaxis
*Propranolol
Pizotifen
Amitriptyline
Topiramate*

Prophylactic treatment (NICE 150)

- Offer topiramate or propranolol for the prophylactic treatment of migraine according to the person's preference, comorbidities and risk of adverse events.
- Advise women and girls of childbearing potential that topiramate is associated with a risk of fetal malformations and can impair the effectiveness of hormonal contraceptives.
