Headaches in Children and Adolescents

Paul Shillito
Topics For Discussion

- What’s different about childhood migraine
- Chronic daily headache (CDH)
- Tumours and other things to worry about
- Management of childhood headache
- When to refer
Importance of Headache

- 10 - 15% adolescents and adults have migraine
- 4% teen girls and 2% teen boys have CDH
- Vast majority of headaches are benign
How Is Migraine Different In Children?

- Migraine can occur in the pre-schooler
- The younger child often has abdominal pain
- Headache is usually bifrontal
- Duration from 30 mins to couple of days
Chronic Daily Headache (CDH)

- 20% of recurrent headache
- Particularly in teenage girls
- > 4 hours of headache per day for 15/7 per month for 3/12
Chronic Daily Headache

- 4 types of CDH
  - Chronic migraine - CM
  - Chronic tension type headache – CTTH
  - Hemicrania continua – HC
  - New onset persistent daily headache – NPDH
Chronic Migraine

- Starts out as intermittent migraine
- Becomes increasingly frequent
- May be associated with medication overuse
- The chronic headache has significant migraine symptomatology.
Chronic Tension Type Headache

- Starts out as acute tension type headache
- Same headache becomes more severe and more frequent
- Maybe associated with medication over use
- The chronic headache has significant TTH symptomatology
Hemicrania Continua

- Persistent severe hemicranial headache
- Stabbing sensation
- Autonomic changes
- 1% of CDH
- Responds to indomethacin
New Onset Persistent Daily Headache

- Sudden onset of chronic daily headache
- Can often recall when headache first started
- No preceding history of headache
- May have migraine or tension type headache symptoms
- 35% associated with infection, head injury or stress at onset
- 65% no associated causes
More than 1 type of headache?

- Often children (and adults) have a mix of headaches

- A common pattern is
  - Increasing migraines
  - The development of CDH with TTH symptoms
  - +/- Medication overuse
Medication overuse syndrome

- Worsening headache attributable to medication overuse

- Likely to occur if there are more than 2-3 treatment days per week for 3 months

- Analgesia is main concern

- Can also be triptans or combinations of analgesia and triptans
Management

- Make a diagnosis

- Reassure all that they don’t have a brain tumour

- In CDH if you can’t classify further
  - don’t push it
  - call it CDH

- If you do nothing – over 90% are better within a year

- Treat appropriately and review
Migraine Treatment - advice

- Confirm the diagnosis

- Reassure

- Address sleep and stress

- For the majority food plays no part - ? food diary

- Most spontaneously improve within a few months
  - 20% will completely spontaneously remit within a year
  - Placebo treatment is successful in 25% in all clinical trials
  - Preventative treatment takes 4-6 weeks to show effect
Migraine - symptomatic treatment

- Treat ASAP
- Paracetamol or NSAID
  - No evidence one is better than other
  - +/- antiemetic (ondansetron 4mg dispersible tab)
- Go and lie down in dark room – get to sleep if possible

- Triptans
  - I use triptans (off license) in children >12yrs
  - Licensed in NZ for adults 18-65 yrs
  - At least 1 triptan licensed in USA for children > 12yrs
  - Several triptans licensed in Europe for children >12yrs
  - Sumatriptan   NZ funded tab
  - Rizatriptan   NZ funded dispersible tab
  - Zolmitriptan  NZ non funded nasal spray
Migraine Treatment - prophylaxis

- **I prescribe these infrequently**
  - (only 60% will respond – also see remission data previous slide)

- **Use for minimum of 6 weeks**
  - Amitriptyline: up to 50mg once daily at night from age 10
  - Pizotifen: up to 1.5mg in divided doses for primary school and older
  - Nadolol: start at 20mg OD (> 5 years) and adjust (BP)
  - Epilim, topiramate: up to epilim 20mg/kg/day, topiramate 2-4mg/kg/day
  - Riboflavin: 50 - 100mg once daily all ages
Chronic Daily Headache Treatment (1)

- Address sleep and stress
- Reassure
  - They do not have a tumour
  - This is not rare
- Avoid medication overuse
Chronic Daily Headache Treatment (2)

- Can use daily preventative meds
  - I find amitriptyline is the most effective

- Strongly consider psychological help
  - Stress management
  - Relaxation techniques
  - Biofeedback etc
Headache and Intracranial Pathology

- Everyone is concerned that they’ll miss a tumour

- History and examination will ensure you don’t

- Always review
Tumours (1)

- Headache is first symptom in 50%

- Vast majority diagnosed within 4 months

- Focal distortion of meninges
  - dull constant focal pain
  - Raised intracranial pressure
  - early morning - becoming constant
  - effortless vomiting often relieves headache

- Severity of headache increases with time
Tumours (2)

- Infratentorial tumours
  - 50%
  - associated with ataxia/cranial nerve signs

- Supratentorial tumours
  - 50%
  - associated with pyramidal signs/seizures
When to Refer

- Physical/neurological signs
- Concerning social history
- Diagnosis not clear and reassurance has failed
- Diagnosis has been made but the child fails to respond to treatment
- Occipital pain
  - More likely to be pathological
Headache Fact Sheets

Downloadable Fact Sheets on a Number of Topics of Importance in Headache Medicine

- Abuse, Childhood Migraine, and Migraine
- Chronic Daily Headache
- Concussion and Post Traumatic Headache
- Cortical Causes of Headache
- Evidence-based Basics on Nutraceuticals: Herbs, Minerals, Vitamins, and Supplements in Migraine Management
- Generalized Anxiety, PTSD, and Migraine
- Headaches Associated with Exertion and Sexual Activity
- Is Hemiphtal Headache Always Migraine?
- Is Migraine a Progressive Disorder?
- Medication Overuse Headache
- Menstrual Migraine: New Approaches to Diagnoses and Treatment
- Migraine & Stroke
- Migraine Prevention Medication
- Parent Fluranser, Oxytocic and Migraine
- Pediatric and Adolescent Migraine
- Peripheral Nerve Blocks
- Proximal Sensitivity and the Headache Patient
- Surgical Treatment of Headache
- Symptomatic Treatment Options when Triggers and Trigones are Contraindicated
- Ten Things That You and Your Patients with Migraine Should Know
- Treatment of Cluster Headaches
- Triptan Therapy for Acute Migraine
- Use of Oral Contraceptives in Women with Migraine