Clinical Design & Innovation
Person-centred, co-ordinated care

PAEDIATRICS

FACULTY OF PAEDIATRICS
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Headaches

BACKGROUND

Headaches are classified as primary or secondary. Secondary headaches are symptoms of an underlying intracranial or medical condition that requires treatment.

DIFFERENTIAL

Primary	Secondary
Cluster	Space occupying lesion (SOL)
Tension	Sinusitis
Migraine	Meningitis Idiopathic intracranial hypertension (IIH) Stroke

TENSION HEADACHE

- Bilateral, dull, non-pulsatile, band-like pain
- Moderate severity, episodic or chronic
- Responds to simple analgesia
- Can be associated with emotional stress
- Treatment - Lifestyle advice

CLUSTER

- Unilateral in trigeminal distribution
- Stabbing
- Severe pain
- Lasts up to 2 hours
- Ipsilateral red eye, tearing, ptosis, sweating, small pupil

MIGRAINE

- Usually frontotemporal. Unilateral migraine emerges in adolescence
- Pulsing quality
- **May last 2-72 hours**
- Associated nausea, vomiting, photophobia phonophobia
- 15% have migraine with aura
  - o Transient focal neurological symptoms that resolve with onset of headache
  - o Commonly visual or sensory
- Triggers include caffeine, tiredness, emotional stress

HISTORY

Description of headache:

- Location
- Duration
- Radiation
- Associated features
- Aggravating/relieving factors
- Precipitating factors
- Change in severity or frequency of headaches
- Family history
- Psychosocial history
- School days missed
- Explore treatment used (consider medication overuse)

EXAMINATION

- Centiles
- Head circumference, weight, height, pubertal status
- Vital signs (Measure BP and HR) *Check BP against reference ranges adjusted for age and height*
- Full neurological exam including extraocular movements, fundoscopy, visual acuity, visual fields and gait assessment (98% of children with brain tumour will have at least one neurologic abnormality)
- Skin exam for neurocutaneous stigmata

INVESTIGATIONS

- Headache diary is most powerful diagnostic tool
- Neuroimaging indicated in specific circumstances
- Opthalmology review if indicated

TREATMENT

Tension headache	Migraine
Explore school and home issues	Avoid triggers
	Consider pharmacological treatment and prophylaxis

RED FLAGS

- Macrocephaly
- Headache that wakes during night or present on awakening
- Headaches with vomiting
- Ataxia
- Seizures
- Acute squint/Deteriorating vision
- Occipital headache
- Presence of VP shunt or known systemic disorder

INDICATIONS FOR NEUROIMAGING

- Abnormal neurological or visual examination
- Frequent or persistent vomiting
- Crescendo pattern
- Signs of raised ICP
- Focal/generalised seizures

TAKE HOME MESSAGES

- Always review after 4-6 weeks to examine pattern of headaches using diary
- Assess trigger factors
- Treatment should focus on lifestyle modification, identification and removal of triggers and simple analgesia
- Consider imaging if increased frequency or severity of headaches over a short time period (weeks)

URGENT REFERRAL

- Children who meet criteria for neuroimaging
- Headache worsens on upright posture and relieved by lying down.
- Headache triggered by Valsalva manouevre (coughing, sneezing or bending down)
- Changing or worsening headache pattern

TREATMENT OF MIGRAINE

Acute migraine 'Treat the aura'	Prophylaxis
Early simple analgesia/antiemetics	Propranolol
Consider a Triptan	Topiramate (teratogenic)
	Amitryptyline

Ref: Headache 10/23. CDI/0055/2.0/2023

REFERENCES:
1. British Paediatric Neurology Association. Children's Headache Training 2018
2. www.headsmart.org.uk
3. Headaches: diagnosis and management of headaches in young people and adults. NICE guideline CG150