Making the Headache Diagnosis

The brain has no sensory fibres. Intracranial pain arises from invasion, stretching, pressure on or inflammation of meninges. The two main classifications of headache are primary and secondary. The below list is not exhaustive but covers the majority of headaches GPs will see.
A useful starting point is to ask yourself why it's not migraine in those under 50 and why its not temporal arteritis in those over 50?

Primary headache

No underlying cause demonstratable - 95% of GP presentations. Problem lies in underlying cellular defects.

Migraine 85% of GP presentations.

- Severe episodic pain with or without aura associated with nausea, photophobia and phonophobia.
- 5% chronic migraine, >15 days each month. Usually history of episodic migraine.

Tension type headache - 10% of GP presentations but high population prevalence. Poorly understood. If occurs in migraine sufferer probably part of migraine spectrum.

- Dull, pressing pain usually bilateral with no nausea, photophobia or phonophobia.
- Episodic or chronic. Reassurance and amitriptyline first line approaches.

Cluster headache and other autonomic cephalalgias <1% of GP presentations

- Very severe short duration unilateral pain with autonomic features on side of pain rarely with nausea, photophobia or phonophobia. Pain is very severe and patient agitated.

Secondary headache

Underlying cause demonstratable (5% of GP presentations). Some important headaches listed below. See (www.i-h-s.org) for full list.

Headache attributed to vascular disorder.

- Subarachanoid haemorrhage. 85% due to aneurismal bleed. Characterised by thunderclap headache. (Worst headache ever rising to a maximum within a minute.) 10% of thunderclap headaches are due to SAH. Medical emergency with high mortality. Sentinel or warning headaches may be recognised in retrospect.
- Temporal arteritis. Occurs over the age of 50. 40% will have polymyalgia rheumatica. Can be systemically unwell. May have jaw claudication. Raised ESR or CRP in 97% of cases. Temporal artery biopsy necessary to confirm diagnosis. Treat with steroids 1mg per kilogram, maximum of 60mg a day and reduce to a maintenance dose.

- Carotid/vertebral artery dissection. Can radiate anywhere in face and neck. Can have an associated Horner's syndrome. Can occur after trauma e.g. RTA. Collagen disease is a risk factor.
- Stroke. Non-specific headache can be associated with stroke
- Cerebral venous thrombosis. Can mimic any headache. Watch cancer, prothrombotic states, pregnancy, infection of facial structures. Can be fatal.
- Hypertension. Apart from malignant hypertension, the contribution of hypertension to headache is over-rated and in practice minimal.

Headache attributed to space occupying lesions

- Tumour. Primary tumour: 70% glioma - prognosis poor; 30% meningioma - 80% 5 year survival. Although headache is common during course of illness, only 10% of tumours present with isolated headache. Pain usually featureless.
- Secondary tumour particularly breast, lung, prostate.
- Non-malignant space occupying lesions e.g. AV malformations, cysts.

Disorders of intracranial pressure

- Idiopathic intracranial hypertension. Commoner in young obese women. Headache and papilloedema often with pulsatile tinnitus. Visual field defects. Can lead to permanent loss of vision. Refer.
- Intracranial hypotension. Occurs due to CSF volume depletion as a result of leakage. Headache is worse on standing and alleviated by lying down. Classically post lumbar puncture but spontaneous leaks can occur. Refer.

Headache attributed to head trauma.

- Can come on up to 7 days after trauma. Intensity of pain may not be related to degree of trauma. Most resolve < 6 months but 25% can go on for longer. Watch for development of depression.
- Headache can be part of a post-concussive syndrome associated with other non-specific symptoms. Treatment difficult but amitriptyline drug of choice. Watch medication overuse headache. Underlying aetiology unknown but watch for secondary causes - haematoma, low CSF pressure due to dural tear, carotid or vertebral artery dissection.

Headache referred from other structures.

- Headache referred from the neck particularly occipital. May be a problem in the elderly. NB a large number of migraine patients will have pain but this is due to the close approximation of the cervical nerve centre and the migraine midbrain centre in the trigeminal-cervical complex. There is usually nothing wrong with the neck.

- Eyes (refractive errors, glaucoma), temperomandibular joint, teeth, sinus (85% of diagnosed chronic sinusitis is migraine) are all possible but overestimated as causes of headache.

Headache associated with activity

- Sexual activity. Pre orgasmic - dull, gradually increases with sexual activity. Orgasmic – sudden severe at orgasm. Needs investigation. Treatment of both pre-emptive indomethacin or beta blocker.
- Exercise induced headache. May be a co-existing primary headache induced by exertion, e.g. migraine but cause of most exercise headache unknown. Need to exclude an underlying pathology. Treatment as for sex headache.

Headache attributed to infection

- Meningitis, encephalitis, systemic infection, HIV, brain abscess, T.B.

Headache attributed to metabolic causes, disorders of homeostasis or drugs

- Obstructive sleep apnoea. May be due to CO_2 retention or poor sleep exacerbating primary headache. Reversible with treatment of problem.
- Carbon monoxide. Still fatalities each year.
- Alcohol, drugs including many prescribed drugs.
- Renal failure, thyroid disease, raised calcium.
- Medication overuse headache. Up to 3% of population. Occurs with regular analgesia or triptan use. (Taken on more than three days a week). All analgesics and NSAIs implicated, particularly codeine compounds. Non-specific, dull pain but usually starts from an underlying primary headache. (Enquire for previous headache history). Abrupt cessation of analgesics rather than gradual withdrawal after starting relevant preventative medication. Steroids useful to cover withdrawal symptoms. High relapse rates.

Cranial neuralgias

- Trigeminal neuralgia most common. Burning or stabbing pain lasting less than two minutes. Often provoked by mild pressure or other triggers. Vascular compression of nerve most common cause.
- Glossopharyngial nerve less common involving tongue, throat, jaw ear.
- Treatment with carbamazepine or lamotrigine.
- Trigeminal neuralgia may be confused with idiopathic stabbing headache particularly with co-existing migraine. "Jabs and jolts" anywhere in head lasting seconds.