Headaches

Introduction

Headaches arise from the pain-sensitive structures of the head. Numerous stimuli are capable of eliciting painful signals and are broadly grouped as mechanical, thermal or chemical.

Most headaches occur as a result of mechanical traction, compression or the chemical irritation of the following pain sensitive structures :

EXTRA CRANIAL
Scalp - skin, subcutaneous tissue and periosteum of the skull
Joints - cervical (neck) and jaw joints
Muscles - scalp and paraspinal muscles
Sinuses
Teeth
Ocular contents

INTRA-CRANIAL
Blood Vessels - arteries, veins and venous sinuses
Meninges - linings within the brain.
Cranial Nerves

The International Headache Classification considers :

PRIMARY HEADACHES - these are not associated with any underlying disease. While there are others, the main primary headaches are:

i.Migraine
ii.Tension Type Headaches
iii.Trigeminal Autonomic Cephalagia. Including :
Cluster Headaches, SUNCT, SUNA, Paroxymal Hemicrania

SECONDARY HEADACHES - where there is underlying disease causing the pain Causes can be:.

i.Infectious
ii.Neoplastic
iii.Vascular
iv.Drug induced (including Medication Overuse Headaches)

Further : Chronic headache is defined as occurring 15 days or more per month and have occurred for at least 3 months.

Primary Headaches

A good history is the key to diagnosis. Examination is usually normal in patients with primary headache, such as migraine,tension-type headache, and cluster headache.

MIGRAINE

Recurrent severe disabling headaches.
Associated with nausea and sensitivity to light.
Normal neurological examination.
Characteristically unilateral, pulsating
Builds up over minutes to hours.
Aggravated by routine physical activity.
It is the most common type of severe primary headache.
More than half of women with migraine report an increased frequency and severity of migraine attacks around menstruation.

Diagnosis of Migraine

Recurrent intermittent attacks lasting 4 -72 hours

At least two symptoms of:

1) Throbbing / pulsing
2) Unilateral
3) Moderate to severe
4) worsened by activity (Avoids)

AND either

5) Nausea / Vomiting
6) Photophobia / Phonophobia

TENSION TYPE HEADACHE

Recurrent, non-disabling headache.
Bilateral
Normal neurological examination.
Tension-type headache is less burdensome than migraine to the individual patient but is of higher prevalence.

Diagnosis of Cluster HA

Severe unilateral HA lasting lasting 15 - 180 minutes
Attack frequency up to 8/day

With at least one of:

1) Conjunctival redness
2) Nasal congestion
3) Eyelid swelling
4) Facial sweating
5) Eyelid droop
6) Restlessness/agitation

TRIGEMINAL AUTONOMIC CEPHALAGIA

The most common form is 'Cluster Headache'. SUNCT, SUNA and Paroxymal Hemicrania are similar but the duration of attacks vary. Frequent, brief, unilateral headaches with facial sensations (such as tearing, eye redness, facial sweating) on the same side to the headache. These headaches are rare but excruciatingly severe.

CHRONIC DAILY HEADACHE

This is NOT a diagnosis but implies the headache occurs frequently.

Differential Diagnosis of Chronic Daily Headache (> 15 days per month)

PRIMARY HA		*SECONDARY HA*
Duration >4Hrs	Duration <4hrs	
Chronic Migraine	Chronic Cluster HA	Duration > 4Hrs consider Medication Overuse HA
Chronic Tension HA	Chronic Paroxysmal	Inflammation (Arteritis, Vasculaitis, Sarcoidosis)
Hemicrania Continua	Hemicrania	Post-Traumatic (trauma, surgery, bleeds, meningitis)
(Unilateral)	SUNCT	Brain Irritation (Meningitis)
New Daily Persistent HA	Hypnic HA	High or Low Intracranial Pressure

Exclude Medication Overuse Headache in all patients with chronic daily headache. as this is the commonest cause. In patients with new daily persistent headache that is daily from onset, exclude secondary causes (See : Differential Diagnosis Table above).

MEDICATION OVERUSE HEADACHE

This is a secondary headache but is included here because of it's easy misdiagnosed as Primary. For patients in whom this headache is caused by simple analgesics or triptans, advise withdrawal of the overused medication - with appropriate advice and support!

HYPNIC HA - Attacks of dull headache developing during sleep and awaken the patient. First occurs in people over 50 years of age.

PRIMARY STABBING HA - Transient and localised stabs of pain in the head that occur spontaneously in the absence of disease. Head pain occurring in a single stab or a series of stabs. Stabs last for up to a few seconds with no associated symptoms.

Secondary Headaches

Secondary headaches should be considered in patients with NEW onset headaches or headaches which differ from their usual headaches.

'RED FLAG' features should be considered. The mnemonic SNOOP T helps.

S Systemic Symptoms or Secondary Risk Factors

FEVER, WEIGHT LOSS, KNOWN CANCER, HIV, IMMUNOSUPPRESSION, PATIENTS WITH RISK FACTORS FOR CEREBRAL THROMBOSIS, JAW CLAUDICATION, VISUAL DISTURBANCE

N Neurological Symptoms or Abnormal Neurological Signs:

CONFUSION, IMPAIRED ALERTNESS, DROWSINESS, LIMB WEAKNESS, COGNITIVE DISTURBANCES

Optometry Based Signs : Neurological Screen, Fundoscopy, Pupils, Colour Perception, Ocular motility.

O Onset

'FIRST AND WORST HEADACHE', THUNDERCLAP HEADACHE, SUDDEN OR ABRUPT AWAKENING FROM SLEEP (but remember that migraine is the most frequent cause of morning Headaches)

PROGRESSIVELY WORSENING. NEW ONSET HEADACHES IN PATIENTS OVER 50, PATIENTS WITH KNOWN CANCER, PATIENTS WITH HIV.

O Older

NEW ONSET OR PROGRESSIVE IN OVER 50s. (Temporal Arteritis could also be associated with jaw claudication and temporal tenderness)

P Previous Headache History

FIRST HEADACHE OR FUNDAMENTALLY DIFFERENT FROM EXISTING HEADACHES (Significant change in features, frequency, severity, associated symptoms)

T Triggered Headaches

HEADACHE PRECIPITATED BY PHYSICAL EXERTION OR VALSALVA ACTIVITIES (coughing, straining, sneezing) HEADACHE CHANGING WITH POSTURE

The following are warning signs or "red flags" for potential secondary headache:

1) New headache in a patient aged over 50 consider Temporal Arteritis
2) First presentation of thunderclap onset. Refer immediately to hospital for exclusion of subarachnoid haemorrhage. intracranial haemorrhage, meningitis, cerebral thrombosis.
3) For patients with headache and features suggestive of infection of the central nervous system (such as fever, rash), refer immediately to hospital.
4) Headache with features suggestive of raised intracranial pressure : changing with posture; valsalva headache (triggered by coughing, sneezing, bending, heavy lifting, straining); Fever; History of HIV or cancer; Focal or non-focal symptoms or signs; papilloedema. Refer urgently.
5) Consider MRI for patients presenting with a trigeminal autonomic cephalalgia.
6) Consider intracranial hypotension in all patients with headache developing or worsening after assuming an upright posture. Refer such patients to a neurologist or headache clinic.

Headache Diaries

Consider using headache diaries and appropriate assessment questionnaires to aid the diagnosis and management of headaches..

WEEK	Please score the pain of your headache out of 10 (0-no pain, 10-unbearable) and indicate if you have any other symptoms as listed.						
	SUN	MON	TUE	WED	THUR	FRI	SAT
HEADACHE SCORE 0-10							
Number of attacks per day							
FEELING SICK YES/NO							
VOMITING YES/NO							
OTHER SYMPTOMS YES/NO Specify in notes							
DURATION OF ATTACKS (Hrs)							
HAD TO LIE DOWN YES/NO							
HAD TO MOVE YES/NO							
TIME AWAY FROM NORMAL ACTIVITIES (Hrs)							
NUMBER OF TABLETS OF MEDICINE TAKEN							
Prescribed 1)							
2)							
3)							
Over Counter 1)							
2)							
3)							
MENSTRUATION YES/NO							

Additional Observations