

### Cervicogenic HA

#### Clinical Findings

Reduced Neck ROM

Reproduced by moving the neck/pressure over C2 NR

Ipsilateral Shoulder/Arm Pain

Unilateral, Doesn't change sides

C1-C3 NR affected

Can present with Nausea, Vomiting, photo/phonophobia

TrP in Upper Traps, Lev Scap, Scales + Suboccipital Extensors

Weak Deep Neck Flexors

#### Classifications

A. Pain referred from a source in the neck & perceived in >1 regions of the head/face + C+D

B. Clinical,lab/imaging evident of a disorder/lesion within the cx or soft tissues of the neck known to be,or generally accepted as, a valid cause of HA (no cx spondylosis)

C. Evidence of HA caused by neck dysfunction - criteria at least one of the following:

1. clinical signs that point to a pain in the neck
2. abolition of HA - diagnostic blockade of cx structure

D. Pain resolves within 3 months of treatment

#### Management

##### Physical Therapy:

Cx Spine Mobilisation/Manipulation

Upper Quartet/DNF strengthening

Tx Spine Manipulations + Exercise

Postural Training

##### Medications:

Antidepressants

Muscle relaxants

#### Management (cont)

Botox

#### Steroid Injections/Nerve blocks

#### Tension Type Headaches

##### S&S

Bilateral, Pressing/tightening

Mild-Moderate Intensity

Can present with migraine symptoms (nausea, vomiting, photo/phonophobia)

Usually lasts minutes to days

NOT WORSENE WITH PHYSICAL ACTIVITY

#### Management

Cx Exercises

Relaxation

Massage

Postural Exercises

Cranio-cx technique

1000mg paracetamol + 130mg caffeine

#### Hypnic HA

##### S&S

Headache that wakes patient up at night

Can be unilateral/bilateral

Begins abruptly

Can have autonomic features

Dull-moderate severity

Responds well to lithium + caffeine

### Management

Exclude 2ndary HA - drug withdrawal, sleep apnoea, brain tumours, TA

Exclude primary HA - migraines, cluster HA, chronic paroxysmal hemicrania

Refer to GP - specialist

Lithium/caffeine most effective

### Red Flags

- HA that is progressively worse over time

- Sudden onset

- Severe HA

- New/unfamiliar HA

- HA with head trauma

- Unexplained weight loss

- Impaired consciousness

- Fever

- Significant neck stiffness

- Rash

- Nuchal rigidity

- Vertigo

- Diplopia

- Drop attacks

- Difficulty speaking/swallowing/walking

- Nystagmus

### SNOOP

- Systemic symptoms: Fever, weight loss, Cancer/HIV

- Neurological signs: confusion, impaired alertness, consciousness

- Onset: sudden/abrupt onset - develops and peaks quickly

- Older: New HA in patients >50 years old (GCA, bleed, stroke)

- Previous HA hx: new HA - different in frequency, severity and clinical features

### Migraine

#### S&S

Unilateral, severe pulsating/pounding HA

Radiates to periorbital/retroorbital/frontal/temporal/ocular areas

Nausea, photo/phonophobia, lack of appetite, mood/libido

Can be with aura/without

Scintillating scotoma (flashy, zigzaggy lights - obstruct visual field)

Can present with hemiplegia and cold extremities

Prodrome, aura, attack, postdrome

Lasts between 4 and 72 hours

**Prodrome:** Lethargy, yawning, food cravings, mood changes, excessive thirst, fluid retention, constipation, diarrhoea, hypersensitivity to light, sound or odors

**Aura:** Develops slowly over 5-20 minutes (distinguishes between TIA/stroke) - lasts up to an hour - Commonly visual disturbances (scintillating scotoma - a piece of absent vision with shimmering border), tunnel vision

Paresthesia is 2nd most common - numbness in hands and then up to arm, face, lips, tongue

Motor symptoms can be present - heaviness in limbs/speech and language disturbances

**Postdromal:** Occur in hours following the attack - fatigue, irritability, euphoria, myalgia, food insensitivity/cravings

Vital signs may reveal - bradycardia, tachycardia, hypertension, hypotension

Observation can reveal Horner's syndrome (mild - ptosis and miosis) ipsilateral to HA **Presence of papilledema = further investigation**

Palpate temporal artery in >50 yo

Limited Cx ROM

Assess cardiovascular/cerebrovascular issues - migraine patients have an increased risk of cardiovascular disease



### Classification

- Migraine without aura
- Migraine with aura (autonomic nervous system - occurs immediately prior to the headache)
- Visual disturbances, extremity paresthesia, nausea, vomiting, hypersensitivity to light/sound
- **IHS:** Five episodic headaches, each lasting 4-72 hours + nausea/vomiting or photophobia/phonophobia with >2 of the characteristics:
  - moderate-severe intensity
  - unilateral presence
  - pulsating quality
  - aggravated by physical activity (can be bilateral and non-pulsating)

### Management

- Drugs: Aspirin (900mg), ibuprofen(400-800mg), paracetamol (1g) - SSRA and ergot alkaloids, beta-blockers, tricyclic antidepressants, divalproex sodium, valproic acid (be careful of overuse headaches)
- Lifestyle Changes - identifying Triggers (Headache diary), if medication, patient should see their GP, dietary advice, hydration
- Massage of SCM, upper traps, splenius capitis, suboccipital, interscapular and shoulder girdle muscles
- Stress relief
- Cold pack @ back of neck
- SMT of Cx (be careful of risk of stroke)
- Strengthen DNF and postural advice for upper crossed
- Yoga
- Headache diary
- Aerobic exercise - 40 minutes 3x a week
- Magnesium, vitamin D, calcium, B6 supplements
- Botox injections
- Surgical care is discouraged

### Risk Factors/Demographics

- Mainly females more than males
- High economic cost - lost workdays
- Migraine without aura = peaks in boys aged 10 and girls aged 17
- Before puberty, migraine is more common in boys, after puberty its girls
- peaks@ 3rd decade, decreases after 4th decade, new onset migraine HA after 50 is rare
- Genetics
- Obesity/overweight
- Low cardiovascular fitness
- Hypertension, hypercholesterolemia, impaired insulin sensitivity, coronary artery disease, hx of stroke
- Medication overuse - acetaminophen, naproxen, aspirin, opiates, barbiturates, triptans
- Hypocalcemia and vita D deficiency
- Triggers - stress, smoking, strong odors, bright/flickering lights, fluorescent light, excessive/insufficient sleep, head trauma, weather changes, high humidity, motion sickness, cold stimulus, lack of activity/exercise, dehydration, hunger, hormonal changes, upper cx tension/cervicogenic HA
- Medications - oestrogen, oral contraceptives, vasodilators, nitroglycerine, histamines, reserpine, hydralazine, ranitidine
- Food triggers - alcohol, excessive caffeine, artificial sweeteners, MSG, soy sauce, citrus fruits, papayas, avocados, red plums, overripe bananas, dried fruits, sour cream, buttermilk, nuts, peanut butter, sourdough bread, aged meats and cheeses, processed meats, anything fermented, pickled, marinated



### Imaging

Not usually considered

If pathology suspected - MRI

If cerebral vascular pathology - aneurysm, vasculitis, arterial dissection - MRA

### DDx

- TTH (bilateral, non-pulsatile not aggravated by physical activity)

- TIA/stroke (more quickly and lasts longer)

- GCA

- Cluster HA

- Acute Glaucoma

- Meningitis

- Neoplasm

- Cerebrovascular bleed

### Cluster HA (Rare) - TAC

#### S&S

Excruciating unilateral periorbital/temporal pain

Sharp, pulsating, pressure like pain - usually on the right side

ipsilateral autonomic symptoms: Conjunctival injection & lacrimation, nasal congestion/rhinorhea, forehead/facial sweating, facial flushing, eyelid oedema, miosis, ptosis

Restlessness & agitation

Can present with Auras, photo/phonophobia, nausea + vomiting

Pain in 1st trigeminal branch - always on same side of head

Physical activity relieves pain

### Management

Avoid Triggers

GP Referral

Triptans, steroids, oxygen inhalation

### Occipital Neuralgia

#### S&S

Piercing/throbbing in upper neck, back of the head, behind ears

Unilateral

Scalp tender to touch

Photophobia

#### Causes

Pinching of the nerves (greater + lesser)

Tight muscles - microtrauma

Too much extension for long periods

OA

Tumour in neck

infection

Gout

Diabetes

Vasculitis

#### Management

Massage

Rest

Antidepressant

Nerve block

Steroids

Treating underlying cause

