

### Pathophysiology

- Convergence of sensory neurons from the cx and trigeminal nerve in trigeminocervical nucleus in upper Cx
- Mechanical irritation of greater occipital nerve

### Demographics

- Women more than men
- Previous history of trauma (concussion and/or motor vehicle accident)
- Weightlifters more susceptible

### Presentation

- Neck tenderness and stiffness
- Often unilateral on same side, but can be bilateral
- Usually moderate- severe pain
- Radiates to occipital, temporal, frontal or supraorbital
- Can affect ipsilateral arm
- Symptoms can last from hours to days
- Patient describes pain as deep and triggered by sustained/awkward cx posture
- Not usually throbbing
- Loss of ROM
- Ipsilateral extension/rotation triggers the POC
- TTP: ipsilateral suboccipital musculature, Greater occipital nerve and affected facet joints
- Can have peripheral sensitisation over eyebrow due to neurological interconnections (eyebrow pinch test)
- Trps in upper traps, suboccipital, cervical and shoulder girdle muscles
- Loss of strength in DNF
- Overactive upper traps and SCM
- MP shows restricted upper Cx
- Look at upper crossed signs and breathing pattern (weak cx flexors, rhomboids, lower traps, hypertonic pecs, suboccipital and upper traps)

### Red Flags

#### SNOOP

- Headaches becoming worse
- Sudden onset severe headache, new and unfamiliar headache that peaks quickly
- Headache after recent head injury
- Fever, rash, nuchal rigidity
- Facial numbness/paresthesia
- Vertigo, diplopia, drop attacks, difficulty speaking/swallowing/walking
- Nausea/vomiting
- Extremity numbness
- Nystagmus
- Weight loss



### Red Flags (cont)

- Hx of cancer
- Confusion/impaired consciousness/alertness
- New headache patient >50 years old, consider Giant Cell Arteritis/SOL

### Imaging

- Avoid unless red flags are present

### DDx

- Posterior fossa tumour
- Arnold-Chiari malformation
- Cx spondylosis
- Herniated disc
- Spinal nerve compression/tumour
- Arteriovenous malformation
- VAD
- VBAI (can mimic Cervicogenic HA)

### Management

- SMT of Cervical and upper Tx (6-8 appointments )
- Myofascial release and stretching of suboccipitals, SCM, upper traps, levator scap, scalenes, pecs and temporalis
- In cervicogenic Tension type HA, neural mobilisation and soft tissue techniques can be effective
- Postural correction + breathing exercises
- Strengthening of DNF, craniocervical flexion, shoulder abduction, shoulder retraction, lat pull, bicep curls, bent over rows, upper tx mobilisation and pec strengthening

