Cervicogenic Headache

Introduction- Cervicogenic Headache (CeH) is one of the secondary headache disorder, which presents with unilateral pain, predominantly on the occipital and upper cervical regions, and is worsened by neck movement, sustained awkward head position, or external pressure over the symptomatic side. Based on International Classification of Headache Disorder, third edition (ICHD-3), diagnostic criteria for CeH are:

A. Any headache fulfilling criterion C
B. Clinical and/or imaging evidence of a disorder or lesion within the cervical spine or soft tissues of the neck, known to be able to cause headache
C. Evidence of causation demonstrated by at least two of the following:
    1. headache has developed in temporal relation to the onset of the cervical disorder or appearance of the lesion
    2. headache has significantly improved or resolved in parallel with improvement in or resolution of the cervical disorder or lesion
    3. cervical range of motion is reduced and headache is made significantly worse by provocative maneuvers
    4. headache is abolished following diagnostic blockade of a cervical structure or its nerve supply
D. Not better accounted for by another ICHD-3 diagnosis

Epidemiology- Due to diagnostic uncertainties, the epidemiology of cervicogenic headache is not very clear and its prevalence among the general population is estimated to be between 0.4 - 4 %. . However in a population with chronic headache prevalence of cervicogenic headache is increased to 15%-20%. The CeH affects women more often than men.

Pathophysiology- The anatomic locus for cervicogenic headache is the trigeminocervical nucleus in the upper cervical spinal cord. Trigeminal afferents overlap with the afferents of upper three cervical segments (C1-C3) at the lower end of the trigeminocervical nucleus (5). This anatomical connection between the cervical and trigeminal innervation systems would explain the frontal or retro-orbital pain in patients with CeH. This could be another reason why CeH is commonly mistaken as migraine or even tension type headache. Role of inflammation and Calcitonin Gere Related Peptide also has been suggested in pathophysiology of CeH .

Treatment - Among multiple treatment modalities suggested in the literatures, few have been tested and even fewer have been proven successful. In general, treatment choice may differ based on pain intensity and duration, patient age and comorbidities, and patient preference. Therefore, after establishing a CeH diagnosis, the treating physician should have a detailed discussion with the patient in order to explain potential treatment options. Manual therapy, usually in the form of physical therapy (PT) is the referred initial treatment in CeH. Zygapophyseal (facet) injection with potential Radiofrequency ablation can be used in patient who does not response to conservative treatment.

Medication like Gabapentin and Pregabalin has been shown some benefit. In the acute phase of CeH or in patients who needs analgesic for breakthrough pain, a Non-Steroidal Anti-inflammatory medication or acetaminophen / paracetamol component can be used.