INFORMATION FOR HEALTH CARE PROFESSIONALS

Chronic Daily Headache

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Chronic Daily Headache (CDH) is a headache of any type occurring 15 or more days per month. It may be primary or secondary (due to underlying disorder). Important characteristics to determine if a patient has a secondary cause for their headaches include: systemic symptoms (fever, weight loss), secondary risk factors (HIV, systemic cancer), neurological symptoms or signs including papilledema, peak onset of pain in less than 1 minute, onset after age 50 years, or a headache precipitated by cough, exertion, valsalva or changes in position.

CDH is sub-classified into short duration (< 4 hours) or long duration (> 4 hours) based on the duration of individual episodes. Short duration CDH include chronic cluster headache, chronic paroxysmal hemicrania, hypnic headache and idiopathic stabbing headache. Long duration CDH includes chronic migraine (CM), chronic tension type headache (CTTH), new daily persistent headache (NDPH), medication-overuse headache (MOH) and hemicrania continua.

The prevalence of CDH is about 4%. The two most common primary chronic daily headaches are CTTH and CM. In a study examining the one year prognosis of migraine, chronic migraine occurred in 3% of all migraine suffers[1]. In the American Migraine Prevalence and Prevention Study (AMPPS), the population based prevalence rates of CM are 0.67% with CM suffers consuming three times more costs/resources than episodic migraine suffers[2]. Persons with CM had significant higher odds of greater adverse headache impact (based on HIT-6 scores) compared to episodic migraine. Predictors of high headache impact include average severity and depression[3].

Chronic migraine is defined by the International Classification of Headache Disorders as follows: (1) CDH for at least 3 months; (2) on ≥ 8 days/month for at least 3 months, the headache fulfils criteria for migraine without aura and/or treated and relieved by triptan(s) or ergots, and (3) there is no medication overuse or secondary cause. Modifiable risk factors for transforming episodic to chronic migraine include snoring/sleep apnea, obesity, caffeine, attack frequency, medication overuse and psychiatric co-morbidity.

Treatment of CM entails lifestyle and risk factor modification, pharmacotherapy, and adjunctive treatment. Lifestyle modifications include sleep pattern regulation, diet, exercise, weight loss and reduction of caffeine intake. Physical therapy, acupuncture, biofeedback, relaxation therapy and cognitive behavioral therapy may be effective non-pharmacologic adjunctive measures. Short term use of long-acting NSAIDs such as naproxen, diclofenac and ketoprofen (14-30

days), or corticosteroids (5-21 days) are effective bridging therapies. Acute abortive agents such as DHE and triptans taken at the onset of the pain and limited to ≤ 2 per week are effective. Other options include DHE-45 (1-2 mg daily for 7-14 days) or greater occipital nerve block (injection of a long-acting anesthetic with or without a corticosteroid over the greater occipital nerve).

In most cases, CM suffers will require prophylactic agents. Anticonvulsants (divalproex sodium, topiramate, gabapentin), tricyclic antidepressants (amitriptyline, nortriptyline, protriptyline), beta-blockers, calcium channel blockers (verapamil), serotonin antagonists (cyproheptadine), and NSAIDS (naproxen sodium) are effective prophylactic agents. Group I (level A) preventive agents are divalproex sodium/sodium valproate, topiramate, amitriptyline, metoprolol, propranolol, timolol, and methylsergide.. Start at the lowest dose and titrate slowly to maximum tolerated dose or until significant relief is achieved. It may take 2-3 months at the maximum dose to achieve clinical benefit. The maximal benefit from any prophylactic regimen may take up to six months. Complementary agents include petasites 75 mg bid, riboflavin, magnesium and coenzyme Q10. The choice of prophylactic agents depends on the patient's co-existing medical conditions, co-morbid risk factors, and preference, as well as the medication's side effect profile, teratogenicity , drug interactions, and cost. The use of two or more preventive medications at smaller dosages may have a synergistic effect while minimizing the side effects associated with pushing one drug to maximal dosages[4]. OnabotuliniumA is an evidenced based, FDA approved treatment option for chronic migraine based on the positive results of the PREEMPT study. It offers the advantage of having no drug-drug interactions and no systemic side effects however muscle weakness at injection site is a risk.

Medication overuse headache is a common cause of CDH. Patients should be queried about all symptomatic treatments used, including over-the-counter analgesics. The prevalence of MOH in the population is 1.4% and higher in chronic migraine sufferers (0.9% of population; 2/3 of all MOH), verses CTTH (0.4%) and NDPH (0.1%). MOH is a CDH associated with regular overuse for >3 month of one or more acute medications. Additionally, the headache has developed or markedly worsened during medication overuse.

"Regular overuse" is defined as ergot, triptan, opioid or butalbital analgesic taken on a regular basis ≥ 10 days/month, other non-opioid analgesics ≥ 15 days/month, or a total exposure of all acute drugs ≥ 15 days/month. The odds ratio of developing CM is approximately 2 in barbiturate users of ≥ 5 days/month and opioid users ≥ 8 days/month. Triptans and short-acting non-steroidal anti-inflammatory agents (NSAIDS) may be associated with MOH; dihydroergotamine and long-acting NSAIDS (such as naproxen, diclofenac, ketoprofen and tramadol) rarely cause MOH. Treatment requires the withdrawal of offending agent(s); the strategy of withdrawal (i.e., gradual, sudden, incorporating other agents such as long acting NSAIDS, long acting triptans, steroids or methadone) depends on the medication(s) being overused. Bridge therapy is often employed as the headache initially worsens after analgesic discontinuation. If the patient is not already taking a preventive medication, it is helpful to initiate a preventive agent as the analgesic is being withdrawn.

Chronic Tension Type Headache (CTTH) is a CDH fulfilling the criteria for tension type headache: (1) headaches lasting hours or continuously with ≥ 2 of characteristic features (pressing/tight, mild or moderate in severity, bilateral, or not aggravated by routine physical activity). Only one of the following associated symptoms may be present: photophobia, photophobia, or mild nausea and no moderate or severe nausea/vomiting. Medication overuse or a secondary cause must be excluded. The strategies used to treat CM are generally employed to treat CTTH.

New Daily Persistent Headache (NDPH) is a CDH headache developing within 3 days of headache onset that is unremitting for > 3 months. Patients will often recount the exact date and time that the headache began. The character of the headache is the same as CTTH and it is treated similarly. Bridge therapy such as dihydroergotamine or a short course of daily triptans may also be needed. Neuroimaging is recommended for all patients with NDPH.

Hemicrania Continua is a daily, continuous, strictly unilateral primary headache disorder that is associated with cranial autonomic features (miosis, ptosis, eyelid edema, lacrimation, nasal congestion or rhinorrhea). The intensity of the pain may fluctuate but the headache never remits. By definition, hemicrania continua remits with indomethacin therapy.

Reference:

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