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Review Article

MANAGEMENT OF CHRONIC HEADACHE

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Abstract:

Introduction: Headache, a devastating painful symptom is one of the most common complaint in the world. the distress symptomatic individuals suffer, social influence and financial cost for both the symptomatic patient and society are of great significance. Headache represents 4% of the general Practitioners consultations, and 2-4% of these are alluded to specialists or hospitals. Headache is likely the most common explanation behind referral to neurology specialists. Roughly 20-30% of every new referral to out-patients neurological offices are because of headache

Methodology: in this paper we carried out a systematic review on observational (nonrandomized) studies using PubMed and MEDLINE from January 1991 through June 2007. The following search terms were used: chronic headache, migraine, tension type headache, hemicranias, medication induced headache, treatment of headache Aim: our aims in the study is to different types of chronic headaches and understand their management. **Conclusion:** chronic headache adds to a huge burden in overall health care system, and a very frequent general practice visit. Treatment of this type of headache is very challenging due to its chronicity as well as its risk of conversion into medication onset headache. More researches that can promise better quality of life for individuals that suffer from chronic dailv headache must be done. Keywords: chronic headache, migraine, tension type headache, medication induced headache

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INTRODUCTION:

Headache, a devastating painful symptom is one of the most common complaint in the world. the distress symptomatic individuals suffer, social influence and financial cost for both the symptomatic patient and society are of great significance. The International Classification of Headache Disorders (ICHD-II) organization had classified headaches into primary and secondary modules. The commonly presentations of primary type of headaches are migraine and tension-type headaches, meanwhile other primary headaches are uncommon [1]. The primary headaches usually come in acute abrupt onset that is intermittent, however, 3% of the population has the primary chronic type of headache, i.e. exceeding 15 headache days each month [2].

Headache represents 4% of the general Practitioners (GPs) consultations, and 2-4% of these are alluded to specialists or hospitals. Headache is likely the most common explanation behind referral to neurology specialists. Roughly 20-30% of every new referral to out-patients neurological offices are because of headache [3].

Chronic daily headache (CDH) may advance from episodic headache through steady transformation over months to years. An expected 3-6% of individuals move from episodic to chronic and the other way around every year. Many risk factors have been distinguished that predict the development of CDH, specifically CM, some that can be modifiable. It is important to recognize sub-types of CDH to properly deal with the condition [1].

METHODOLOGY:

Data Sources and Search terms

We conducted this review using a comprehensive search of MEDLINE, PubMed, and EMBASE, January 1985, through February 2017. The following search terms were used: chronic headache, migraine, tension type headache, hemicranias, medication induced headache, treatment of headache

• Data Extraction

Two reviewers have independently reviewed the studies, abstracted data, and disagreements were resolved by consensus. Studies were evaluated for quality and a review protocol was followed throughout.

The study was approved by the ethical board of King Abdulaziz University Hospital

Chronic Headache

Diagnosis remains the foundation of headache management yet may moreover be at risk to external factors. In the United States, insurance limits for TTH may be either much lower than that for migraine or there can be no remuneration at all for TTH. This develops bias that results in under-representation of the actual extent of TTH, which is the most common type of headache. The 2013 IHS classification divided primary headaches into migraines, TTH, trigeminal autonomic cephalalgias and other primary headache disorders [4].

Researchers describe 'chronic headache' on the basis of frequency (>15 days out of every month) and length (\geq 4 hours per headache day) over the prior 6 months it may consist either TTH or migraine. This requires at any rate a half a year of headache history, a thought that is consistently unacceptable to the patient and family physician. Patients and family physicians are oftentimes stressed over a headache that stays for less than a month and consider these as 'chronic' paying little attention to the formal definition. The initial crucial rule for the family physician is to differentiate primary headache types, particularly TTH and migraine, from secondary headaches, which may require emergency intervention [4].

Types of Chronic Headache

Migraine

The second most common form of headache is migraine, usually presented as recurrent pulsating or throbbing, moderate to severe, and consistently unilateral pain that stays for up to 4-72 hours with absolute freedom between the attacks (episodic). The headache is accompanied with nausea, vomiting and/or photophobia, sound or smell. Individuals suffering prefer to lie still and/or undisturbed in a dark and quiet room, and to avoid strenuous activity. Around one-third of individuals experience aura, report as a gradual focal neurological symptom persisting 5-60 minutes. visible aura, in the form of zigzag strips or spreading scintillating scotoma (decreased sight), is by far the most common, though unilateral sensory disturbances and/or dysphasia may happen either meanwhile or gradually. Sometimes, particularly in elders, aura may happen without headache (migraine equivalent) and ought to be differentiated from transient ischemic attack. typically, an aura worsens over couple of minutes and marches starting with one area then onto the next [5].

Around 1.3–2.4% of migraine patients have chronic migraine portrayed by the IHS as headaches on 15 days or further in a month of which no less than 8 days have migrainous components. Chronic migraine

is the most devastating kind of migraine with substantial impact on health-related quality of life, comorbidities and usual accompaniment of medication overuse. Unlike episodic migraine, individuals with chronic migraine commonly end up jobless, have relationship difficulties and family issues, and be refractory to conventional acute and preventive treatments [6].

Tension-type headache

This is commonly described as a featureless headache because of the lack of related symptoms that run with migraine. The condition is commonly diagnosed however, poorly understood. The pain is depicted as aching or pressure, and the feeling of as the head is in a vice or has a tight band around it. TTH is commonly episodic and rarely impacts on activities of daily living. The chronic type is uncommon and may be accompanied with drug overuse [6].

Tension-type headache versus migraine

Most individuals call each and every bad headache 'migraine'. This isn't unexpected, specifically as there may be a skew in the epidemiological method to manage migraine, as discussed previously. For the people who ascribe to the continuum model of headaches, patients can have features of both TTH and migraine types. even those strictly adhering to the IHS classification acknowledge the potential for coexistence of both headache types. Where it is hard to differentiate between TTH and migraine, some have adopted the term 'tension-vascular headaches' (a term not used in the IHS classification)3 to show a headache type that has features of both TTH and migraine yet has therapeutic ramifications [4].

The most important characteristic tool for proper headache diagnosis is the taking of a brief and representative history of the headaches. It is important to question all declared symptom. The history and description of headache can change with time. The history should consist of **[4; 7]**:

- For how long the individual has had headaches
- the nature of the pain (eg tight and gripping, pulsating and throbbing, or stabbing and lancinating)
- the site of the pain (eg. frontal and/or occipital and vertex, band-like, common or retro-orbital, unilateral or bilateral)
- possible accompanied visual symptoms, which may include teichopsia, fortification spectra or blurry vision
- gastrointestinal symptoms, for instance, nausea and also vomiting

- associated features, for instance, photophobia, phonophobia and in addition osmophobia
- the frequency and length of the headache, and precipitating and alleviating factors.

At the point when these data have been obtained, it should be simple to differentiate between the two most common forms of chronic headache, specifically TTH or migraine. Where such differentiation proves hard, the term 'tension-vascular headache' may be accepted.

Although a proper history is the foundation of all neurological diagnosis, one should not dismiss the prerequisite for a comprehensive physical examination. The usage of an ophthalmoscope may be essential in the examination of the patient who presents with headache. It is important to exclude elevation of intracranial pressure as this may identify a medical emergency. The identification of localizing neurological manifestation has diagnostic relevance. One should not dismiss features, for instance, stiff neck, skin rash or altered mental state, as infection is important and may reflect a necessity for emergency intervention **[4]**.

Dependent upon jurisdiction, migraine is often addressed as the most common headache type (especially where remuneration for TTH is negligible) however, the epidemiology suggests a prevalence of 5% for true migraine and 27% for TTH. It must be acknowledged that TTH can be severe and intrusive and that such severity alone does not differentiate between TTH and migraine. individuals may have a headache, greatly indistinguishable from TTH, caused by analgesic overuse and it is essential, when taking a history, to explore the use of medications. It can be vital to confine the usage of such agents and to alert individuals this may result in short-term exacerbation of their headache **[8; 9]**.

The American Academy of Neurology created practice parameters for migraine, which are furthermore applicable for TTH as the border between these types of headache may be blurred. Treatment should commence according to headache type, rather than chronicity yet where traditional intervention does not succeed, additional agents, for instance, gabapentin (and hence also pregabalin) and levetiracetam, may additionally be beneficial **[10]**.

Cluster headache

Cluster headache does not only mean headaches that happen close together and is frequently over diagnosed by family physicians. It is a generally rare and distinctive type of headache. Such headaches may have a recognizable precursor, for example, ones that are occurring in the morning following a big night out' or they might be related with significant alcohol consumption. They regularly happen at the same time of day for a finite period, frequently in the early morning, possibly waking the patient at the exact time every day. They are regularly associated with suffused red eye with ipsilateral conjunctival injection, lacrimation and stuffy nose with ipsilateral nasal blockage or rhinorrhea, associated with unilateral pulsating pain in the ipsilateral forehead, possibly accompanied with evelid edema, meiosis and ptosis. Diagnosis dictates at least five assaults, which can happen from one each other day to eight per day, without an alternative etiology. This kind of headache should initiate specialist consultation and might be treated with agents, for example, verapamil or lithium [11].

Cervicogenic headache

Cervicogenic headache is another type of headache, frequently so named at the time of referral. It is thought to radiate from the spinal trigeminal nucleus however, it is regularly clinically indistinguishable from TTH, in spite of the fact that trigeminal autonomic cephalalgias were the subject of an essential focus group amid the development of the IHS Classification. These headaches will frequently respond to the treatment paradigm for TTH and can frequently be successfully managed by the family physician [12].

Medication Overuse Headache (MOH)

MOH is the most common headache to appear in the specialist headache clinic and an estimated 1-1.5% of the population experiences this condition and accounts for 50-80% of patients presenting to a tertiary headache clinic. It is 3.5 more common in females and greater majority (90%) take more than one painkiller. A meta-analysis of 29 thinks about demonstrate that almost two third (65%) of patients with MOH experience migraine, 27% have tension-type headache and 8% report other primary headache disorders **[13; 14]**.

Any analgesic can cause MOH despite the fact that combination analgesics are the most common (39-42%) followed by simple analgesic (29-38%), triptans (12-20%), opioids (6%) and ergotamine (4-11%). The risk is greater in smokers, obese patients and those with past substance abuse including alcohol. The risk of progression to CM is greater in those taking barbiturates (OR 1.73) followed by opiates (OR 1.4), triptans (OR 1.07) and NSAID (OR 0.97). NSAIDs like triptans induce progression in those with more than 10-14 days headache days for each month. However, combined with barbiturates or caffeine, NSAIDs can produce headache after a brief period and with use of lesser doses. MOH grows quicker and in a much lower dose with triptans than ergot or simple pain analgesic alone. Similarly, withdrawal symptoms are a lot milder and shorter with triptans than others [15].

Physical dependence with opioids and barbiturates can happen while psychological mechanism can operate between those taking painkillers fully expecting headache or fear of missing a social event. A few experts advised that early treatment of a migraine attack may increase the risk of MOH; thus, such advice is better set for those with pure migraine or the individuals who can differentiate migraines from different headaches. Patients must be cautioned about the risk of development of MOH. It is proposed that repeated expsure to a similar substance sensitizes the central receptors or diminish threshold of activation. Visit admission of triptan may prompt down-regulation of 5-HT receptors and change central inhibitory pathways. The periaqueductal gray matter is believed to be the potential site for such activity. PET studies have demonstrated significant vet reversible changes in thalamus, anterior cingulated gyrus, inferior parietal lobe although irreversible changes are found in the orbitofrontal cortex [16].

The education of the patient assumes an important role in both preventing MOH and accomplishment of withdrawal treatment. The measure of painkillers is restricted to no more than 2 doses for each week and the individuals who abuse need to understand that as long as they keep on using the analgesics they will not improve [17].

Trigeminal Neuralgia

Trigeminal neuralgia (TN) is unilateral, severe and short pain of stabbing nature that commonly affects the maxillary and mandibular division and less frequently the ophthalmic division of the trigeminal nerve. The condition might be primary or idiopathic or secondary to a structural lesion other than a vascular compression. bilateral TN is sometimes found in Multiple Sclerosis. The condition is more common in women (3:2) and right side is affected more regularly (3:2). The condition affects 12-27 for every 100,000 and the incidence increases from 16/100,000 in the fourth to 30/100, 00 in the 9th decade **[18]**. The pain of TN resembles an electric shock, paroxysmal, brief goes on for a couple of seconds and precipitated with cutaneous or mucosal stimulation, for example, talking, eating or swallowing, brushing teeth or touching some portion of the face. The pain may associate with little jerking movement of the face or tics. Autonomic symptoms are uncommon and mild; prominence of such symptoms should raise doubt of TAC. There are times of remissions in spite of the fact that with time the relapses get frequent and their duration gets prolonged. The condition is successfully treated with carbamazepine or oxcarbazepine. There is restricted evidence of viability for different agents like gabapentin, lamotrigine and baclofen [**18**].

Secondary Headaches

There are symptoms that should raise suspicions to alarm clinicians to consider more serious diagnosis instead of primary headaches. Sudden onset, severe headache (regularly referred to as thunderclap headache) may indicate subarachnoid hemorrhage or intracranial hemorrhage, vertebral artery dissection, cerebral venous thrombosis or reversible cerebral vasoconstriction syndrome. Headaches exacerbated by coughing, straining or sneezing raise worries of raised intracranial pressure. If headaches are provoked by stance, for example, stooping, imaging is required to avoid a portion of these headaches, which require emergency intervention. Related neurological features, for example, sensory changes, weakness, diplopia (including 6th cranial nerve palsy), Horner's Syndrome or visual field defects require further investigation. Exacerbation with eye movement and impaired vision may propose retrobulbar neuritis. Enlarged blind spot indicate papilledema or raised intracranial pressure [19].

Headache with stiff neck, nausea and vomiting, recent onset of confusion, altered consciousness as well as fever raises concerns of infection, for example, meningitis or encephalitis, and requires hospital admission and lumbar puncture. If in uncertainty, the family physician, when encountered with a red flag, should look for further advice as soon as is practicable **[19]**.

Treatment of chronic headaches

Where headaches happen less regularly than once per fortnight, it appears to be acceptable to use pulse therapy, for example, simple analgesia with aspirin, diclofenac, ibuprofen, naproxen, paracetamol or other same agents. These might be all that is required for either TTH or migraine whenever treated early. Such intervention ought to be supplemented by a healthy dose of reassurance, as is best given by the family physician [20].

Where such agents have been problematic for the treatment of migraine, triptans (sumatriptan, zolmitriptan, rizatriptan, naratriptan or elmatriptan) might be better for acute intervention.8 Ergot derivatives may offer a less expensive option with equivalent efficacy. Opioid analgesics ought to be considered if all else fails for acute headache management and whenever required should to provoke a red flag consideration. Where headaches happen more frequently than once per fortnight, prophylaxis ought to be offered, and the decision determined by the headache type, as set out inside the continuum model **[21]**.

TTH is best managed with tricyclic antidepressants (amitriptyline where sleep disturbance is a noticeable element and imipramine where sleep does not represent an issue). Tension-vascular headache can be managed with beta-blockers (propranolol), and migraine is treated with pizotifen. The operative rule with every one of these agents is to 'begin low and go slow' yet to escalate treatment until accomplishing either efficacy or terrible side effects **[20]**.

Tricyclic antidepressants can be begun with as little as 10-25 mg nocte up to a maximum of 75 mg, however, are frequently abandoned if they are inadequate at those doses, thus disposing of a possibly viable remedy. Doses as high as 200 mg or 250 mg might be required for unremitting headaches however, escalating to such high levels requires close observation and assessment. It is important to caution patients of potential unwanted effects, for example, 'drying out', which is caused by the anticholinergic properties of the tricyclics. Patients frequently describe the dry mouth as hunger, since eating produces salivation, yet this may lead to weight gain and in this manner irrigating a thirst, as opposed to nourishing it, should be advocated. Issues, for example, possible fatigue, impairment of driving capacity or gastrointestinal disturbance ought to be discussed. Palpitations may happen, and the patient should report while encountering these [21].

Tension-vascular headaches are regularly responsive to beta-blockers, for example, propranolol. Once more, the point is to 'begin low and go slow, beginning at 10-40 mg twice every day and titrating up as required. It is important to ask about the patient's potential for asthma or heart disease and to monitor heart rate and perhaps blood pressure. As mentioned above for tricyclic antidepressants, many advocates ceasing propranolol at too low a dose (160 mg daily). Doses as high as 160 mg four times a day might be required for unremitting headaches, yet again, such high dosages require close supervision and detailed monitoring. It cannot be overemphasized that treatment should be tailored to the patient's needs and the patient should not be on either excessively little or too much medication; in any case, deserting a potentially efficacious treatment at too low a dose may deny the patients their best option for a satisfactory result [7].

Pizotifen is the agent of choice for prophylaxis of migraine. Again the 'begin low and go slow' adage is recommended. Dose begins at 0.5 mg twice a day yet again too low a dose might be recommended as the maximal acceptable (3 mg daily).8Doses as high as 4.5 mg a day might be important to accomplish sufficient prophylaxis. Fatigue and hunger are the two most common unfavorable effects related with pizotifen, although all medications may cause nausea, vomiting, diarrhea, constipation and skin rash [21].

Agents, for example, sodium valproate, topiramate and verapamil have been advocated for migraine prophylaxis. Other antiepileptic medications, for example, gabapentin, pregabalin (now endorsed for neuropathic pain) or even levetiracetam6 may have a role in chronic headache yet are the domain of the specialist and will not be discussed about further in this article. In a similar manner, the role of botulinum toxin might be considered for headache management yet will not be discussed about in this paper as it is typically the domain of the specialist **[22]**.

Should the headache not respond to treatment as would have been expected, or the quality or site of the pain changes, specialist advice ought to be looked for. Although chronic headache may represent a diagnostic difficulty, it is better to overreact and to look for assistance for those with longstanding, refractory headaches since complacency may have dangerous consequences for the patient [22].

Non-pharmacological intervention

There are various important issues to consider with respect to non-pharmacological treatment of headaches yet maybe the most important is to help family physicians to remember the serious outcomes that may result following neck manipulation, which can cause dissection, stroke or even death **[23]**.

TTH and migraines are frequently worse inside the context of stress and it makes a family physician explore factors that exacerbate the patient's stress and look for approaches to relieve the stress. The family physician is well-placed to dive into such private domains and to provide intimate consultation. lifestyle problems, sleep pattern and other possible contributing elements, for example, sleep apnea, should not be disregarded. if sleep apnea is viewed as a contributing factor, polysomnography is a fitting intervention. This will require referral to a sleep physician and will not be discussed about further in this paper [21].

Associated features, for example, arthritis, hypertension, obesity and other associated diagnosis additionally require consideration inside the context of headache management. Family physicians are best put to treat the whole patient, instead of concentrating on only one aspect, as may happen inside specialist practice [21].

Medication-overuse headache management

Patients consuming simple analgesic drugs are less inclined to respond to both acute and preventive treatments and consequently suspension of the abused medicine is the primary need in all cases. Those overusing simple analgesics can be requested to stop their drug unexpectedly, in spite of the fact that opioid-containing analgesics must be halted gradually over a few weeks. An out-patient withdrawal with explanation and reassurance is adequate in the vast majority of patients [24]. Patients should know that their headaches may deteriorate before they show signs of improvement. The span of rebound symptoms changes relying upon the abused medication, being most limited for triptan and longest for combination analgesics. There are no guidelines for treating rebound symptoms although use of NSAIDs, for example, Naproxen 500 mg bd for about 2 weeks is generally recommended. The role of steroids stays unclear. The use of preventive treatment before or after withdrawal of the painkillers stays controversial and the choice stays with the treating physician. Those requiring in-patient care to manage procedure of withdrawal frequently advantage from constant or intermittent infusion of intravenous dihydroergotamine with anti-emetics [17].

CONCLUSION:

Chronic headache is the most common neurological symptom to present to the family doctor. This outline has offered a practical approach to the management of chronic headache, provided hints to differentiate among TTH and migraine (the two most common primary headache types to present to the family doctor), and discussed treatment alternatives, red flags, which require more detailed consideration, and referral for specialist conclusion. **REFERENCES:**

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