

RESEARCH ARTICLE

Clinical profile of chronic daily headache in patient attending tertiary centre

Nilesh Kumar, Praveen Chaturvedi, Vijay Parashar, Pankaj Kannauje, Ravindu Tiwari, Ranjan Bhattanagar

Department of General Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh, India

Correspondence to: Nilesh Kumar, E-mail: nilesh19arreno@gmail.com

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ABSTRACT

Background: The frequent headache syndrome is among the most challenging disorder that conforms clinician on a routine basis. A major problem with the relatively new form chronic daily headache (CDH) has been its confusion with chronic tension type headache (CTTH) and other community used term for which there have never been operational diagnosable criteria or even informal clinical criteria. The medical literature is replete with example over the past three decades in which the terms mixed headache combined headache tension headache; vascular headache and rebound headache are used interchangeably by interference. CDH became synonymous in many clinical setting with CTTH or inconvenient vascular or migrainous features or medication overuse. Now CDH is well described in literature with defined classification. Hence, the researcher is used to interested what is the burden and proportion of the various type of CDH. **Aims and Objectives:** Primary aim of this exploratory prospective study was to study the incidence of primary headache and secondary headache which were CDH in patient attending neurology outpatient department, to study the incidence of type of primary headache, the cause of secondary headache, the age wise distribution and sex wise attribution of CDH and to study the impact of family history, occupation and precipitating factor on CDH. **Materials and Methods:** In our study, a total of 626 cases fulfilling the International Headache Society-4th revised criteria comprising inclusion and exclusion criteria were included after informed consent, meticulous history taking pertaining to headache, in particular, thorough examinations and relevant laboratory investigations, and were certified by one neurologist. **Results:** Primary headache including migraine, tension-type headache, Short-lasting unilateral neuralgiform headache with conjunctival injection, new daily persistent headache, and medication overuse headache was the most common headache that caused CDH. Neurocysticercosis was leading cause of a secondary headache that leads to CDH. Light, fast, and stress were leading precipitants associated with CDH. **Conclusion:** CDH was mostly associated with primary headache over the secondary headache. Chronic migraine was leading cause of CDH in comparison to CTTH. Females were more affected both in chronic migraine and CTTH. Family history was more positive in case of chronic migraine. Vomiting nausea, photophobia, and phonophobia vertigo were leading symptoms associated with CDH whereas light, fast, and stress were leading precipitants associated with CDH.

KEY WORDS: Primary Headache; Secondary Headache; Chronic Daily Headache; Chronic Tension Type Headache; Chronic Migraine; Neurocysticercosis

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INTRODUCTION

Chronic daily headache (CDH) is defined by convention as headache of any type occurring at least 15 days per month. CDH is subdivided into secondary form attributed to underlying disorder and the primary form not attributed to underlying disorder. Primary CDH is further subdivided into

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the short duration (<4 h) and long duration types. The two most common disorders in this rubric are chronic tension type headache (CTTH) and transformed migraine other disorders include hemicrania continua new daily persistent headache (NDPH) and various chronic short duration headache such as chronic cluster headache, chronic paroxysmal hemicranias, and hypnic headache. The great majority of CDH sufferers in the population and in sub especially care have either CTTH or transformed migraine.^[1,2]

Many chronic headache sufferers do not seek medical care for their headache and remain undiagnosed. Therefore, it is particularly important to study chronic headache in population samples because those in specialty care are like to differ in an important way from typical chronic headache sufferer demographic factor such as gender income and place of residence as well as disease characteristics. Comorbid illness and family history are factors that likely impact treatment decision and also may be mistaken for disease attributes when studies are based on highly selected population.^[3,4]

Daily or near-daily headache is a widespread problem in clinical practice. Around 40% of the patient attending a specialized headache clinic meets CDH diagnostic criteria, of which 80% are women. In these clinics about 60% of patients suffer from chronic migraine, 20% from CTTH and 20% meet NDPH criteria. CDH prevalence in general population seems to be around 4–5% regarding the prevalence of CDH subtypes. NDPH is rare 0.1% whereas the prevalence of a transform migraine (1.5–2%) CTTH (2.5–3%) is clearly higher.^[5,6]

Our primary aim of this exploratory prospective study was to study the incidence of primary headache and secondary headache which were CDH in patient attending neurology outpatient department, to study the incidence of type of primary headache, the cause of secondary headache, the age wise distribution and sex wise attribution of CDH and to study the impact of family history, occupation and precipitating factor on CDH.

MATERIALS AND METHODS

The study was carried out in S.S. Hospital Banaras Hindu University, Varanasi, from June 1, 2008, to May 31, 2009. The study was approved by the Institute Ethical Committee. A total of 626 cases included in the study fulfilling the International Headache Society-4th revised criteria and were certified by one neurologist. After informed consent signed by participants and meticulous history taking pertaining to headache, in particular, patients were subjected to thorough examinations which included blood pressure, pallor, sinuses, tenderness, refractory error, ocular examination, fundus examination, neck movement, and relevant laboratory investigation were also carried out.

Patients in the age group of 14–70 years were included in the study having either headache of more than 15 days duration per month in 3 consecutive months or history of the post-traumatic headache of more than 3 months duration. Older patients with temporal arteritis were also included in the study. Those cases who refuse to cooperate, cases with extreme of age (<14 year and >70 year), cases with recent history of head injury and patients having seizure episodes within 7 days of headache were excluded from the study.

Patients included in the study were divided into two groups, those suffering with primary headache and those with secondary headache. Each group was further subdivided based on causation; chronic migraine, CTTH, short-lasting unilateral neuralgiform headache with conjunctival injection (SUNCT), NDPH, medication overuse chronic cluster headache, and hemicrania continua being included in the first group whereas intracranial neoplasm (Glioma), neurocysticercosis and tuberculoma being included in the latter group. The age wise distribution, sex-wise attribution of CDH, the impact of family history, precipitating factors, and symptoms commonly associated with a primary headache were studied especially in purview of a chronic migraine and CTTH being the leading cause of primary daily headache.

RESULTS

Out of 626 patients included in the study, 96.8% (606) patients suffered with primary headache and 3.2% (20) with secondary headache. Former group of primary headache included 240 female (62.5%) and 144 male (37.5%) patients of chronic migraine amounting 63.36% of chronic migraine patients and CTTH patients were 36.63% that comprised 158 females (71.17%) and 64 males (36.82%), whereas no patients were found of SUNCT, NDPH, medication-overuse chronic cluster headache, and hemicrania continua. Whereas in the latter group of secondary headache, 14 patients (70%) suffered with neurocysticercosis comprising 8 females (57.14%) and 6 males (42.86%); 4 patients, all males, suffered with an intracranial neoplasm (Glioma) and only 2 patients including one male and one female suffered with tuberculoma Table 1.

In the purview of chronic migraine and CTTH as a major cause of primary headache leading to CDH; chronic migraine was common among 14–44 years of age group (56.5%) whereas CTTH was more prevalent among 14–34 years of age group (28.2%) in both male and female. Positive family history was found to be more significant in cases of chronic migraine (86.94%) as compared to CTTH (42.8%) and that too in female mostly 55% in case of chronic migraine and 24.05% in case of CTTH. Furthermore, females with migraine showed more association with aura 29.16% (70) as compared to males 17.88% (20). So far as, symptoms and precipitating factors are concerned; vomiting (81.94%), nausea (75%), photophobia (52.22%), phonophobia (38.88%), and vertigo (38.88%)

Table 1: Distribution of the patients according to type of headache

Type of headache	Male	Female
Primary headache	208	398
Chronic migraine	144	240
CTTH	64	158
Secondary headache	11	9
Neurocysticercosis	6	8
Glioma	4	0
Tuberculoma	1	1

CTTH: Chronic tension type headache

Table 2: Age distribution in the patients with chronic migraine and CTTH

Age	Chronic migraine		CTTH	
	Male	Female	Male	Female
14–24	32	80	20	64
25–34	56	78	24	64
35–44	42	56	8	20
45–54	10	22	8	6
55–64	4	4	4	6

CTTH: Chronic tension type headache

Table 3: Family history in the patients with chronic migraine and CTTH

Family history	Chronic migraine		CTTH	
	Male	Female	Male	Female
Positive	46	132	12	38
Negative	98	108	52	41

CTTH: Chronic tension type headache

were major symptoms in chronic migraine whereas past four symptoms (nausea 82.5%, photophobia 47.5%, phonophobia 46.66%, and vertigo 40%) were major presenting symptoms associated with CTTH, whereas light and fasting were major responsible precipitating factors for chronic migraine and stress and sound were more commonly associated with CTTH as a precipitating factor Tables 2 and 3.

DISCUSSION

Majority of the patient nearly 90% were between 14 and 44 years of age, which is most productive age group, females were the most treatment seeking patient. Most of the studies from India or abroad show the same gender distribution. Compared with other studies, in our study data reflect that chronic headaches are more common in women. In this study, out of 626 patients with chronic headache, primary headache was the predominant type accounting for 96.8% (606) as compared to secondary headache seen only in 3.2% (20) Consistent with our finding, Senthil and Gunasekaran showed primary headache as the predominant type with a

prevalence of 82% and remaining 18% with secondary headache.^[7,8]

According to our results, chronic migraine headache was the most common type of headache with a prevalence of 63.36% followed by chronic tension headache diagnosed in 36.3%. Chakravarty *et al.* also published earlier who reported that 82% of the patients suffered from migraine followed by 16% from CTTH whereas in contrast Ravi *et al.* have reported CTTH as the most prevalent type. The studies conducted in the different geographical region of the world with diverse population group having different prevalence of chronic headache types, which might be due to different cultural and population characteristics of the incorporated patients. The frequency of the types of headache diagnosed in the overall population differs possibly due to the higher or lower level of morbidity, difference in economic condition, treatment by local physician not specialized in treatment of headache, self-medication by over-the-counter drug, in proper treatment by individuals, apart from this the level of stress for that individuals exposed, which influences the demand for medical assistance.^[9,10]

According to the literature, TTH is the most common cause of primary headache around the world suggested by various epidemiological study. This might be correlated with self-treatment of tension-type headaches by the general population. Whatsoever the chronic migraine is quite prevalence of and suggest its clinical importance to look for medical assistance. Stress is one of the most noted triggers of chronic migraine as well as TTH. A fruitful population-based and studies conducted in various specialty clinics have reported that a stressful event or situation was trigger of migraine headache in 36–42% and 62–72%. In our study light and fasting were the trigger for migraine whereas stress was the culprit for TTH.^[11,12]

In the current study, imaging of brain in the form of magnetic resonance imaging or computed tomography shows a normal study in almost majority of patients with chronic primary headache. Imaging brain of few patients revealed age-related atrophy which is insignificant.

CONCLUSION

Primary headache was the most common headache causing CDH as compared to secondary headache. Among the causes of primary headache, chronic migraine was leading cause of CDH followed next by CTTH. Females were more affected both in chronic migraine as well as CTTH. Neurocysticercosis was leading cause of secondary headache that leads to CDH. Significant positive family history was present more in cases of chronic migraine. Vomiting, nausea, photophobia, phonophobia, and vertigo were leading symptom associated with CDH; whereas light, fast, and stress were leading precipitating factors associated with CDH.

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