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Evaluation And Analysing Causes Of Patients Presenting With Chronic Headache At A Tertiary Care Centre

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ABSTRACT

Chronic headaches are regarded by the WHO as one of the common incapacitating disorders. The purpose of this study was to determine the clinical characteristics, assessment, and frequency of subtypes of primary chronic headache.

Methodology: The study was conducted at Dhiraj Hospital in Vadodara, Gujarat. The research, which had patients aged 18 and older who had main persistent headaches that could not be attributed to any organic cause, was questionnaire-based and completed by the investigator. An episode of a chronic headache was defined in this study as one that persisted for at least three consecutive months and for at least 15 days. Relevant examination and CT/MRI ruled out secondary reasons.

Results: The most prevalent kind of chronic primary headache among the 150 patients was migraine (52%), with CTTH occurring in 33.33%, hemicrania in 7.33%, and NDPH in 7.33%. Women and younger age groups had a much higher prevalence of chronic headaches.

Conclusion: Headaches are considered to be equally dangerous as any other neurological disorder in India. Migraine produces a great deal of disability, which includes a heavy load on family life and forced absences from work.

Keywords: *Primary chronic headache, Chronic migraine, Chronic tension-type headache (CTTH), New daily persistent headache (NDPH), Hemicrania continua.*

1. INTRODUCTION

A headache is a discomfort in the head and neck area that can be a sign of an underlying illness or medical condition, or it can be a problem in and of itself. Cephalalgia is the medical name for headache. According to recommendations created by the International Headache Society (IHS) in 1988 and updated for republication in 2004, modern physicians categorise headaches into two major groups: primary and secondary. The epidemiology of headache problems is only partially understood, despite the fact that they are among the most prevalent of all medical conditions.(1) The majority of population-based research has been on migraine, which is not the most prevalent headache illness while being the most investigated. Although tension-type headaches are more common and headaches that occur 15 or more days a month are often more incapacitating, none of them has gotten as much attention. There aren't many population-based research for nations with limited resources. In these nations, comprehensive data collecting is hampered by a lack of financing, a population that is frequently mostly rural, and the low profile of headache problems in comparison to infectious illnesses.

Even still, there is no denying that headache problems are extremely common worldwide, impacting individuals of various ages, ethnicities, socioeconomic backgrounds, and geographic locations. In order to close the knowledge gaps in various parts of the world, population-based data is now being collected.

According to current understanding, migraines, which are hormonally driven, afflict 11% of people globally, with a three-fold greater incidence in women.(2) Elderly people and children are less likely to suffer from migraines.

An extrapolation of migraine prevalence and attack incidence data indicates that for every million people in the general population, 3,000 migraine episodes take place daily.(3)

More than 70% of people report having an episodic tension-type headache, which is the most prevalent form of headache.[4] Its 1-year prevalence seems to vary widely over the world, averaging 42% in adults, with a slightly greater prevalence in women than in males. One to three percent of persons suffer from a chronic tension-type headache.[2]

"Primary headaches account for almost 90% of all headaches. Less than 10% of headaches are secondary headaches, which are brought on by illnesses or medical conditions.[5] Therefore, by assessing the incidence and aetiology of various main headache types, this study aims to close gaps in the knowledge on headaches, particularly primary chronic headaches.

2. MATERIAL AND METHODS

This study was cross-sectional observation study. The purpose of this study was to examine the prevalence, critical evaluation, and etiological distribution of several primary chronic headache types in patients whose episodes persisted for at least three consecutive months and at least 15 days. The study was conducted at the Dhiraj Hospital in Piparia, Vadodara, Gujarat, which is affiliated to the S.B.K.S. MI&RC.

150 individuals who had main persistent headaches that had no organic reason were included in the study. The researcher used a standard questionnaire to ask patients about their headache episodes. All patients provided a thorough history. The employment, frequency, severity, duration, laterality, kind of pain, related symptoms, aggravating factors, and family history were all reported on the questionnaire. To rule out the secondary headache, all required investigations, including CT/MRI, were completed.

ICHD-3 classification for headaches was used for different type and subtype of headaches in this study.

INCLUSION CRITERIA

1. All patients having primary Chronic Headache.
2. Age: 18 years or more
3. Only those who gave written informed consent.

EXCLUSION CRITERIA

1. Pregnant women.
2. All patients who show any secondary cause of chronic headache.

3. RESULTS

Out of 150 patients 95 were females and 55 were male. 78 (52%) were diagnosed as having Migraine, 50 (33.33%) patients had Chronic Tension Type Headache, 11 (7.33%) had Hemicrania and 11 (7.33%) patients had New Daily Persistent Headache (FIGURE 1). Migraine constituted the maximum diagnosis followed by Chronic Tension Type Headache.

TABLE- 1 indicates out of 50 patients of CTTH side of headache in 31 (66.00%) was always generalized, 3 (06.00%) was always on left side, 7 (14.00%) was always on right side, 3 (06.00%) was mostly (90%) It side, 2 (04.00%) was mostly (90%) right side, 2 (04.00%) was side shifting unilaterally, 0 (00.00%) was sometimes B/L sometime on one side. Out of 11 patients of Hemicrania side of headache in 1 (09.09%) was always generalised, 4 (36.36%) was always on left side, 2 (18.18%) was always on right side,1. (09.09%) was mostly (90%) left side, 2 (18.18%) was mostly (90%) right side, 1 (09.09%) was left side shifting unilaterally, 0 (00.00%) was sometimes B/L sometime on one side. Out of 78 patients of Migraine side of headache in 13 (16.67%) generalised, 7 (08.97%) was always on left side, 14 (17.97%) was always on right side, 14 (17.97%) was mostly (90%) left side, 12 (15.38%) was mostly (90%) right side, 15 (19.23%) was side shifting unilaterally, 3 (03.85%) was sometimes B/L sometime on one side. Out of 11 patients of NDPH side of headache in 7 (63.64%) was always generalised and 4 (36.36%) was always on left side.

In CTTH, most common character of headache was pressure type (46%). In hemicrania and migraine, most common was throbbing type – 27% and 85.90% respectively. In NPDH, most common was 45.45%. Other characters noted in all the types of headache are burning, squeezing and sharp piercing type but were less common.

TABLE- 2 indicates that out of 50 patients of CTTH average duration of headache in 20 (40.00%) was 1-2 minutes,15 (30.00%) was 2-10minutes,9(18.00%) was 10-30minutes, 2 (4.00%)was 30 minutes in <4hrs, 2 (4.00%) was 4hrs in<24 hrs,1(2.00%) was 24 hrs, 1(2.00%) was >24 hrs -3 days. Out of 11 patients of Hemicrania average duration of headache in 0 (0%)was 1-2 minutes,1 (9.09%)was 2-10minutes, 1 (9.09%) was 10-30minutes, 1 (9.09%)was 30 minutes in <4hrs, 4 (36.36%) was 4hrs in<24 hrs, 4(36.36%)was 24 hrs, 0 (0%) was >24 hrs -3 days. Out of 78 patients of Migraine average duration of headache in 8 (10.26%) was 1-2 minutes, 13 (16.67%) was 2-10minutes,19 (24.36%) was 10-30minutes, 19 (24.36%) was 30 minutes in <4hrs, ,12 (15.38%) was 4hrs in<24 hrs, 7 (8.97%) was 24 hrs, 0 (0%) was >24 hrs -3 days. Out of 11 patients of NDPH average duration of headache in 11 (100.00%) patients was 4hrs in<24 hrs.

TABLE- 3 indicates out of 50 patients of CTTH 7 (14.00%) had less than 1 episode per month, 9 (18.00%) had 1-4 episodes

per month, 21 (42.00%) had 5-9 episodes per month, 8 (16.00%) had 10-14 episodes per month , 3 (6.00%) had more than 15 episodes per month and 2 (4.00%) had 30 episodes per month. Out of 11 patients of HEMICRANIA 0 (0%) had less than 1 episode per month, 1 (9.09%) had 1-4 episodes per month, 1 (9.09%) had 5-9 episodes per month, 0 (0%) had 10-14 episodes per month , 2 (18.18%) had more than 15 episodes per month and 7 (63.64%) had 30 episodes per month. Out of 78 patients of Migraine 5 (6.33%) had less than 1 episode per month, 15(18.99%) had 1-4 episodes per month, 24 (30.38%) had 5-9 episodes per month, 12 (15.19%) had 10-14 episodes per month, 18 (22.78%) had more than 15 episodes per month and 5 (6.33%) had 30 episodes per month. Out of 11 patients of NDPH all 11 (100.00%) patients had 30 episodes per month.

TABLE- 4 indicates out of 50 patients of CTTH restriction of activity occur in 9 (18.00%) which get aggravated by normal work, 2 (04.00%) hamper even on routine activities, 9 (18.00%) hamper with some activities, 2 (04.00%) had no effect on walking. 28 (56.00%) not hamper by any activity. Out of 11 patients of Hemicrania restriction of activity occur in 3 (27.27%) which get aggravated by normal work, 0 (00.00%) hamper even on routine activities, 6 (54.55%) hamper with some activities, 0 (00.00%) had no effect on walking, 2 (18.18%) not hamper by any activity. Out of 78 patients of Migraine restriction of activity occur in 15 (19.23%) which get aggravated by normal work, 3 (03.85%) hamper even on routine activities, 46 (58.97%) hamper with some activities, 3 (03.85%) had no effect on walking, 11 (14.10%) not hamper by any activity. Out of 11 patients of NDPH restriction of activity occur in 0 (00.00%) which get aggravated by normal work, hamper even on routine activities, 4 (36.36%) hamper with some activities, 1 (09.09%) had no effect on walking. 6 (54.55%) not hamper by any activity.

FIGURE 1: TYPE OF CHRONIC HEADACHE

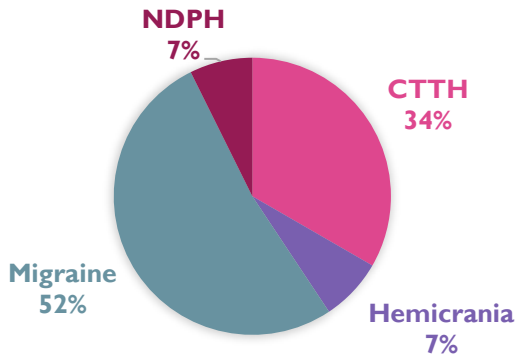

TABLE 1: SITE OF HEADACHE

Type of Headache	Frontal	Occipital	Orbital / Supraorbital	Parietal	Temporal
CTTH	34 (68.00%)	0 (0.00%)	8 (16.0%)	2 (4.00%)	6 (12.00%)
Hemicrania	8 (72.73%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	3 (27.27%)
Migraine	25 (32.05%)	3 (3.85%)	8 (10.26%)	4 (5.13%)	38 (48.72%)
NDPH	6 (54.55%)	2 (18.18%)	0 (0.00%)	1 (9.09%)	2 (18.18%)
Total	73 (48.67%)	5 (3.33%)	16 (10.67%)	7 (4.67%)	49 (32.67%)

TABLE 2: AVERAGE DURATION OF HEADACHE

Type of headache	Average Duration					
	1-2 Minute	2-10 Minute	10-30 Minute	30 min-<4hrs	4hrs -< 24hrs	>24 hrs - 3 days
CTTH	20(40.0%)	15 (30.0%)	9 (18.00%)	2 (4.00%)	2 (4.00%)	1 (2.0%)
Hemicrania	0 (0.00%)	1 (9.09%)	1 (9.09%)	1 (9.09%)	4 (36.36%)	0 (0.00%)

Migraine	8(10.26%)	13(16.67%)	19(24.36%)	19(24.36%)	12(15,38%)	0 (0.00%)
NDPH	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	11(100%)	0 (0.00%)
Total	**30(20.00%)**	**31(20.67%)**	**30(20.00%)**	**22(14.67%)**	**19(12.67%)**	**4(2.67%)**

TABLE 3: FREQUENCY PER MONTH

Type of Headache	**Frequency per Month**				**Total**
	15-20 Days/month	**21-25 Days/month**	**26-30 Days/month**	**Daily**	
CTTH	17 (34.00%)	29 (58.00%)	3 (06.00%)	2(4%)	50
Hemicrania	1 (9.09%)	1 (9.09%)	2 (18.18%)	7 (63.64%)	11
Migraine	20 (25.64%)	36 (46.15%)	18 (23.08%)	5 (6.41%)	78
NDPH	0 (0.00%)	0 (0.00%)	0 (0.00%)	11 (100%)	11
Total	38 (25.33%)	71 (47.33%)	22 (14.67%)	19 (12.67%)	**150**

TABLE 4: FACTORS PRECIPITATING ATTACKS

Precipitating factors	**Type of Headache**				**Total**
	CTTH	**Hemicrania**	**Migraine**	**NDPH**	
Fasting	3 (6.00%)	0 (0.00%)	3 (3.85%)	0 (0.00%)	6 (4.00%)
Lack of sleep	33 (66.00%)	2 (18.18%)	48 (61.54%)	4 (36.36%)	87(58.00%)
Loud Noise	0 (0.00%)	0 (0.00%)	7 (8.97%)	1 (9.09%)	8 (5.33%)
Physical Exertion	2 (4.00%)	1 (9.09%)	8 (10.26%)	0 (0.00%)	11 (7.33%)
Riding in Car	0 (0.00%)	0 (0.00%)	0 (0.00%)	1 (9.09%)	1 (0.67%)
Skipping Meal	0 (0.00%)	1 (9.09%)	8 (10.26%)	0 (0.00%)	9 (6.00%)
Stress	11 (22.00%)	6 (54.55%)	1 (1.28%)	2 (18.18%)	20(13.33%)
Others*	1 (2.00%)	0 (0.00%)	3 (3.85%)	0 (0.00%)	4 (2.67%)
Weather Changes	0 (0.00%)	1 (9.09%)	0 (0.00%)	3 (27.27%)	4 (2.67%)
Total	**50**	**11**	**78**	**11**	**150**

*others:- over use of caffeine, ice cream, obesity, etc.

4. DISCUSSION

4% of outpatient doctor visits are for headaches, making it one of the most prevalent complaints in general medicine. It has the dubious distinction of being the first symptom of many different illnesses to be identified.[6]

The majority of clinical and epidemiological research has been conducted in affluent nations, and there is no evidence to support public health initiatives or treatment recommendations for headaches in low- and middle-income nations, where 85% of the world's population resides.[7]

Of the 150 patients in our research, 55 were male and 95 were female. The most prolific age group, those between the ages of 31 and 50, accounted for almost 54% of all patients seeking treatment; the majority of these patients were female. Our study's age and gender distribution is comparable to those of earlier research projects by "Senthil c et al[8] and Dabhi et al.[9]" This study supports these previous research by showing that headaches are more frequent among women.

According to our research, migraines make up 52% of all chronic headaches, with CTTH coming in second at 33.33%. These values hold up well when compared to those from other research from "Senthil c et al[8], Dabhi et al[9] and Castillo et al.[10]"

According to the recently published 2010 Global Burden of Disease report, migraine accounts for over 3% of all disability related to a single disease globally. When comorbidities are taken into account, migraine ought to rank among the most incapacitating illnesses.[10] According to our research, the majority of chronic headaches—with the exception of migraines—do not interfere with daily activities. The quality of life was impacted by migraines, which hindered some activities and, in the majority of cases, even occurred during normal work.

Our research indicates that migraines typically manifest as unilateral, throbbing headaches that range in severity from moderate to severe, whereas CTTH and NDPH typically manifest as pressure headaches that range in distribution from mild to moderate. According to Senthil C. et al.'s[8] research, most migraine sufferers still have pulsating or throbbing headaches, whereas most patients with tension and NDPH experience pressing headaches. Patients suffering migraines experienced headaches that were more intense. While the majority of patients with tension headache, NDPH, and mixed headache presented with bilateral headache, 51% of migraine patients had bilateral headaches and 49% had unilateral headaches. The most frequent site, according to this study, was the frontotemporal area, which was followed by the frontal and occipital areas, with the temporal area being the least prevalent. In our investigation, frontal and temporal regions are the most often seen places. In comparison to Senthil C et al.[8], our study revealed that the typical length of migraine, CTTH, is 4–8 hours, and NDPH is 4–24 hours. The frequency is 5–9 days per month, while the duration is 15–25 days per month against 4–8 hours and 18–24 hours, respectively.

According to Senthil C. et al.'s study[8], stress was the most prevalent aggravating factor for individuals with chronic migraine (71%) and chronic tension headache (78%). Other aggravating elements that are frequently linked to migraine headaches include noise, scent, and illumination. Our study revealed that the majority of migranous (62%) and tension-type headaches (66%) were caused by sleep deprivation, with stress accounting for 13.33% of chronic headaches. A tiny but substantial amount of headaches were caused by physical effort, loud noises, and missing meals.

5. CONCLUSION

In India, headaches are just as serious as any other neurological condition. Migraine causes a significant amount of incapacity, including forced job absences and a significant burden on family life. Our study's many criteria, thorough history, and examination helped identify main chronic headaches early, which in turn helped lower the burden and expenses related to these headaches.

REFERENCES

[1] World Health Organization. Report of the expert consultation of the optimal duration of exclusive breastfeeding, Geneva, Switzerland, 28-30 March 2001.

[2] Stovner LJ, Hagen K, Jensen R, Katsarava Z, Lipton RB, Scher Al, Steiner TJ, Zwart JA. The global burden of headache: a documentation of headache prevalence and disability worldwide. Cephalalgia. 2007 Mar;27(3):193-210.

[3] Steiner TJ. Scher Al, Stewart WF, Kolodner K, Liberman J, Lipton RB. The prevalence and disability burden of adult migraine in England and their relationships to age, gender and ethnicity. Cephalalgia. 2003 Sep;23(7):519- 27.

[4] Rasmussen BK. Epidemiology of headache. Cephalalgia. 1995 Feb;15(1):44- 67.

[5] Headache Classification Subcommittee of the International Headache Society. The international classification of headache disorders. cephalalgia. 2004;24(1):9-160.

[6] Mateen FJ, Dua T, Steiner T, Saxena S. Headache disorders in developing countries: research over the past decade. Cephalalgia. 2008 Nov;28(11):1107-14.

[7] Murtaza M, Kisat M, Daniel H, Sonawalla AB. Classification and clinical features of headache disorders in Pakistan: a retrospective review of clinical data. PloS one. 2009 Jun 8;4(6):e5827.

[8] Senthil C, Gunasekaran N. Clinical profile of patients with chronic headache in a tertiary care hospital. International Journal of Advances in Medicine. 2016 Dec 29;3(3):721-6.

[9] Dabhi AS, Vadivelan M, Modia J. A study of sixty cases of chronic daily headache. Journal, Indian Academy of Clinical Medicine. 2013 Apr;14(2).

[10] Castillo J, Muñoz P, Guitera V, Pascual J. Epidemiology of chronic daily headache in the general population. Headache: The Journal of Head and Face Pain. 1999 Mar;39(3):190-6.