



STUDY OF CLINICAL PROFILE OF PATIENTS WITH CHRONIC HEADACHE IN A TERTIARY CARE HOSPITAL

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Conflicts of Interest: Nil

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Abstract:

Introduction: Headache is the most common complaint encountered by a physician in his day to day practice. According to different population based studies more than 70% of people throughout the world experience one headache per year during their lifetime. This study was done in a tertiary health care centre with a rural surrounding to know the clinical and demographic profile of patients with chronic headache.

Methodology: 100 patients of chronic headache attending the Neurology out-patient department were included in the study after applying inclusion and exclusion criteria. A detailed history and detailed examination of each patient was undertaken. All patients were sent for psychiatric evaluation and investigated with CT scanning of the brain to rule out secondary causes for chronic headache.

Results: Females outnumbered males accounting for 73% of the total study population. Majority of the chronic headache patients were in the age group of 37.31 years with a SD of ± 11.94 years. In the study population 91 were married. 20 of them had chronic headache of more than 5 years duration. When patients were asked about the intensity of headache 37 had severe headache and 34 had moderate degree of headache. After the psychiatric evaluation of all the patients, 7 patients were diagnosed to have depression and 18 patients have anxiety. 14 patients had abnormal CT findings.

Conclusion: From our study on chronic headache we conclude that the most common type of chronic headache is chronic migraine followed by chronic tension type of headache. Chronic headache are more common in middle aged married women. Psychosocial factors need to be given importance while evaluating chronic headache.

Keywords: chronic headache, chronic migraine, chronic tension type headache, married females, psychiatric evaluation

Introduction

Headache is the most common complaint encountered by a physician in his day to day practice. According to different population based studies more than 70% of people throughout the world experience one headache per year during their lifetime.¹ The International Headache Society has not defined the chronic headache formally. But if the patient is suffering from headache for more than three months duration then it is taken as chronic headache.^{2,3} Literature from South East Asian countries like India and Pakistan have shown tension type headache and migraine to be the commonest cause for chronic headache.^{4,5}

Though the headache is a common ailment, it is mostly unrecognized, neglected and undertreated in developing countries. The clinical diagnosis of headache and later its management requires careful history taking and detailed examination of the patient by the treating physician. But unfortunately chronic headache patients are often neglected by themselves as well as the treating physician as they think that nothing much can be done for their chronic headache. Chronic headache poses a greater economic burden to the society.

A classification developed by the International Headache Society characterizes headache as primary or secondary.

Primary headaches are those in which headache and its associated features are the disorders itself whereas secondary headaches are those caused by exogenous disorders. Primary headache often results in considerable disability and decrease in the patients quality of life. Common causes of primary headache are tension type [69%], migraine [15%], idiopathic stabbing [2%], exertional [1%] and cluster [0.1%.]⁶

This study is done in a tertiary health care centre with a rural surrounding to know the clinical and demographic profile of patients with chronic headache.

Methodology:

This was across-sectional study, conducted in The Oxford Medical College Hospital, Attibele, Bengaluru which is a tertiary health care centre.

Study period: June 2019 to October 2019

Study population: 100 patients of chronic headache attending the Neurology out-patient department.

Inclusion criteria:

People aged more than 18 years of age with complaints of headache for more than 3 months.

Exclusion Criteria:

1. People aged less than 18 yrs of age
2. Pregnant ladies

A detailed history was taken from patients attending the Neurology OPD with complaints of headache of more than 3 months duration. History about the frequency, intensity, site and character of the headache, aggravating factors, associated symptoms and family history of headache were collected. Sociodemographic data of each person including their age, marital status and occupation were noted. A detailed examination of each patient with specific reference to blood pressure, pallor, refractory error, ocular examination including fundus examination, Ear nose and throat examination for sinus tenderness, neck movements and central nervous system examination were carried out. All patients were sent for psychiatric evaluation and investigated with CT scanning of the brain to rule out secondary causes for chronic headache.

Statistical Methods: Descriptive and inferential statistical analysis has been carried out in the present study. Results on continuous measurements are presented on Mean \pm SD (Min-Max) and results on categorical measurements are presented in Number (%). Significance is assessed at 5 % level of significance. The following assumption on data is made, **Assumptions:** 1. Dependent variables should be normally distributed, 2. Samples drawn from the population should be random, Cases of the samples should be independent. Chi-square/ Fisher Exact test has been used to find the significance of study parameters on categorical scale between two or more groups, Non-parametric setting for Qualitative data analysis. Fisher Exact test used when cell samples are very small.

Results:

This study was carried out in the outpatient Department of Neurology, The Oxford Medical College, Hospital, Attibele, Bengaluru. A total of 100 patients attending OPD were included in our study.

Females outnumbered males accounting for 73% of the total study population. Majority of the chronic headache patients were in the age group of 37.31 years with a SD of ± 11.94 years. Different demographic data of patients under study are given in Table no 1.

Table 1: Characteristics of chronic headache patients

Age	Mean \pm SD: 37.31 \pm 11.94 years
Sex	Male 27% Female 73%
Occupation	Housewife 54% Farmers 13% Unskilled workers 21% Students 6% Others 8%
Marital status	Married 91% Unmarried 9%

Among 100 patients, 47 patients had migraine, 38 had tension type of headache [TTH], 12 had postsinusitis headache, 2 had cluster headache and 1 had trigeminal neuralgia. The distribution of different types of chronic headache among the study population is shown in Table 2.

Table 2: Distribution of different types of chronic headache

Diagnosis	No. of patients	%
Cluster headache	2	2.0
Migraine	47	47.0
Post sinusitis headache	12	12.0
Trigeminal neuralgia	1	1.0
TTH	38	38.0
Total	100	100.0

In the study population 91 were married. 20 of them had chronic headache of more than 5 years duration. When patients were asked about the intensity of headache 37 had severe headache and 34 had moderate degree of headache. Character of the headache was throbbing type in 44% of patients. 12 patients had associated painful neck movements. 15 of the total 100 patients had diffuse headache. Family history of chronic headache was present in 9 patients. 18 patients were pale on examination. Commonest triggering factor for headache was stress [52%] followed by exposure to sunlight [37%]. 8 patients with chronic headache had myopia and were using spectacles. Fundus examination of all the patients was normal. After the psychiatric evaluation of all the patients, 7 patients were diagnosed to have depression and 18 patients have anxiety.

CT brain was done for all the patients. 14 patients had abnormal CT findings. 7 patients had calcified granuloma, 5 had age related atrophic changes and 2 had lacunar infarct in their CT brain. [Table no 3]

Table 3: CT Brain- findings of patients studied

CT Brain	No. of patients (n=100)	%
Normal	86	86.0
Abnormal	14	14.0
Atrophic changes	5	5.0
Calified granuloma	7	7.0
Lacunar infarct	2	2.0

Different clinical variables like age, gender, marital status and occupation were correlated with the different types of headache [table no 4]. Mean age of presentation in both migraine and TTH was between 31-40 years. Marital status, Gender and occupation did not show any statistical significance when compared with the subtypes of headache. Most of the Migraine headache patients [21%] had moderate degree of pain compared to 18% of TTH patients who had severe pain. Intensity of pain showed clinical significance [$p=0.007$] with different types of headache.

Table 4: Correlation of Clinical variables in relation to Diagnosis of patients studied

Variables	Diagnosis			Total (n=100)	P value
	TTH (n=38)	Migraine (n=47)	Others (n=15)		
Age in years					
<20	0(0%)	1(2.1%)	1(6.7%)	2(2%)	0.131
20-30	12(31.6%)	12(25.5%)	10(66.7%)	34(34%)	
31-40	13(34.2%)	17(36.2%)	1(6.7%)	31(31%)	
41-50	5(13.2%)	10(21.3%)	2(13.3%)	17(17%)	
51-60	6(15.8%)	6(12.8%)	1(6.7%)	13(13%)	
>60	2(5.3%)	1(2.1%)	0(0%)	3(3%)	
Gender					
Female	30(78.9%)	30(63.8%)	13(86.7%)	73(73%)	0.128
Male	8(21.1%)	17(36.2%)	2(13.3%)	27(27%)	
Marital Status					
Married	33(86.8%)	45(95.7%)	13(86.7%)	91(91%)	0.245
Unmarried	5(13.2%)	2(4.3%)	2(13.3%)	9(9%)	
Duration					
<2 years	15(39.5%)	23(48.9%)	7(46.7%)	45(45%)	0.129
2-5	19(50%)	12(25.5%)	4(26.7%)	35(35%)	
>5	4(10.5%)	12(25.5%)	4(26.7%)	20(20%)	
Intensity					
Mild	8(21.1%)	10(21.3%)	10(66.7%)	28(28%)	0.007**
Mod to severe	0(0%)	1(2.1%)	0(0%)	1(1%)	
Moderate	12(31.6%)	21(44.7%)	1(6.7%)	34(34%)	
Severe	18(47.4%)	15(31.9%)	4(26.7%)	37(37%)	

Discussion:

Around 65 % of the patients who attended the neurology outpatient department with complaints of chronic headache were in the age group 21 and 40 years, the most productive age group. Majority of these patients were women [73%]. Studies done by Senthil C et al., Jain AP and others and Ravi G and others have been reported similar age and gender distributions.^{7,8,9}

According to the results of our study, Migraine headache was the most common type of

Headache with a prevalence of 47% followed by tension type of headache diagnosed in 38%. This result of our study was comparable to the study done by Agrawal et al where, migraine was the commonest headache type (46%), followed by tension type headache (31.7%) whereas in contrast Ravi et al has reported TTH as the most prevalent type.^{9,10}

CT Brain done for all patients to rule out secondary causes of headache was normal in almost majority of patients [86%]. CT Brain of few patients showed calcification, age related atrophy and lacunar infarct which was not significant for causal relationship.

It was observed that headache was more common among married people. 33% (tension type) and 45% migraine patients were housewives which is comparable with the study done by Jain AP and others [41.1% tension Type and 41.5% migraine].⁸ The probable cause for this increase in

married individuals may be attributed to the fact that both tension type headache and migraine have a considerable associated psychological co-morbidly. More number of psychosocial problems are likely to be encountered by married persons as compared to unmarried persons, probably predisposing them to these primary headache disorders.^{11,12}

Limitation of the study:

Sample size to evaluate the characters of chronic headache is small. Follow up of patients could not be done.

Conclusion:

This study highlights various factors associated with headache including the importance of psychiatric evaluation. From our study on chronic headache we conclude that the most common type of chronic headache is chronic migraine followed by chronic tension type of headache. Chronic headache are more common in middle aged married women. Psychosocial factors need to be given importance while evaluating chronic headache.

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