Original Article

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Psychiatry Section

The Socio-demographic Profile, Classification and the Clinical Profile of Headache: A Semi-urban Hospital Based Study

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ABSTRACT

Context: Migraine and tension type headache are the two most common types of primary headaches. In spite of the internationally accepted diagnostic criteria, it is not uncommon to face difficulties in diagnosing headache in the clinical practice.

Aims: Our aim was to study the socio-demographic profile, classification and the clinical profile of headache patients who attended in a hospital which was located in a semi-urban setting.

Settings and Design: A prospective, cross-sectional study.

Methods and Materials: Patients mainly presented with the complaint of headache who were more than 12 years of age, were included in the study. The demographic details, the onset and the lifetime duration of the illness, the pattern of headache, the associated features and the family history were recorded. The international classification of headache disorders (ICHD), version 2 was applied.

Statistical Analysis: Descriptive analysis was done by using SPSS, version 17.0.

Results: 74% of the patients were females and 44% of them were between 29 and 44 years of age. Migraine was the most common disorder (182 patients), followed by tension type headache (99 patients) and cluster headache (3 patients).

Conclusion: A number of symptoms that are presently not included in the ICHD-2 classification may help in differentiating migraine from the tension type headache.

Key Words: Cluster headache, Demographic details, Migraine, Symptoms, Tension type headache

INTRODUCTION

Headache is one of the most common maladies which affect humans. 76% of the women and 57% of the men report at least one significant headache per month, and more than 90% experience at least one noteworthy headache in their life time [1].

While headache has been an unaddressed cause of morbidity around the world, it has remained to be largely unrecognized in the developing world [2].

Most of the clinical and epidemiological studies have originated in the developed countries and there is scarce literature to support the treatment guidelines or the public health intervention which deal with headache in the low and middle income countries where 85% of the population lives [3].

The aim of our study was to study the socio-demographic profile, classification and the clinical profile of the headache patients who attended a hospital which was located in a semi-urban setting.

METHODOLOGY

A prospective study of all the patients who presented with the chief complaint of headache to the departments of Medicine, Psychiatry, Ophthalmology and Otorhinolaryngology at the Sri Chamarajendra District Hospital which was attached to the Hassan Institute of Medical Sciences, Hassan, Karnataka, India between January 2011 to May 2011 was conducted.

For each patient, a routine clinical questionnaire was completed. The questionnaire consisted of demographic details and details on the onset and the lifetime duration of the illness, the pattern of the headache, the associated factors and the family history. Patients with secondary causes of headache were excluded from the study.

The International Classification of Headache Disorders, version 2 was applied and as many diagnoses as was necessitated by the criteria and as was clinically justified, were assigned to each patient [4].

The ethical committee's clearance was taken for the study at the Sri Chamarajendra District Hospital. A written informed consent was taken from all the patients who were included in the study.

Statistical Analysis

The statistical analysis was done by using the Statistical Package for Social Sciences, version 17.0.

RESULTS

A total of 356 patients were selected for the study, of which 56 were excluded due to secondary causes and the remaining 284 patients were included in the final study group.

The study group included 210 (74%) females and 74 (26%) males. A majority of the patients were suffering from migraine-182(64%), followed by tension type headache-99(35%) and cluster headache-3 (1%).

The clinical characteristics at presentation of the patients who were diagnosed with migraine have been summarized in [Table/Fig-1]. Migraine was the most commonly diagnosed primary headache

Variable	Category	Female (135)	Male (47)	Total (182)
Age at onset (in years)	13-28 29-44 >45	40(30%) 67(50%) 28(20%)	12(26%) 22(47%) 13(27%)	52(29%) 89(49%) 41(22%)
Duration of symptoms (in years)	<0.5 0.5-2 2-4 >4	13(10%) 21(16%) 19(14%) 82(60%)	7(15%) 8(17%) 9(19%) 23(49%)	20(11%) 29(16%) 28(15%) 105(58%)
Frequency of head ache (per month)	<5 6-14 >15	51(38%) 30(22%) 54(40%)	17(36%) 9(19%) 21(45%)	68(37%) 39(21%) 75(42%)
Average duration of each episode (in hours)	<1 1-12 12-24 >24	16(12%) 51(38%) 20(15%) 48(35%)	16(34%) 17(36%) 7(15%) 7(15%)	32(18%) 68(37%) 27(15%) 57(30%)
Site of pain	Unilateral Bilateral Orbital Frontal Parietotemporal Occipital Holocranial Hemicranial Neck and shoulders	112(83%) 23(17%) 13(10%) 14(10%) 28(21%) 10(8%) 32(24%) 13(10%) 25(17%)	36(77%) 11(23%) 3(6%) 3(6%) 15(32%) 8(17%) 15(32%) 2(4%) 1(3%)	148(81%) 34(19%) 16(9%) 17(9%) 43(24%) 18(10%) 47(26%) 15(8%) 26(14%)
Type of pain	Heaviness Pressure like Throbbing Stretching Pounding	12(9%) 38(28%) 57(42%) 13(10%) 15(11%)	3(6%) 16(34%) 21(45%) 4(8%) 3(7%)	15(8%) 54(30%) 78(43%) 17(9%) 18(10%)
Triggers/ aggravating factors	Sun light Stress Lack of sleep Sound Menstrual cycle Food related	11(8%) 52(39%) 36(27%) 10(7%) 12(9%) 14(10%)	3(6%) 22(47%) 12(25%) 2(4%) 0 8(18%)	14(8%) 74(42%) 48(26%) 12(6%) 12(6%) 22(12%)
Relieving factors	Lying down Darkness Silence Local pressure Analgesic medications Sleep	33(25%) 13(9%) 21(16%) 2(1%) 47(35%) 19(14%)	11(23%) 10(21%) 2(4%) 1(2%) 20(43%) 3(7%)	44(24%) 23(13%) 23(13%) 3(2%) 67(37%) 22(11%)
Associated features	Photophobia Phonophobia Vomiting Nausea Vertigo Lacrimation	31(23%) 38(28%) 7(5%) 33(25%) 19(14%) 7(5%)	13(28%) 14(30%) 2(4%) 13(28%) 4(8%) 1(2%)	44(24%) 52(29%) 9(5%) 46(25%) 23(12%) 8(5%)
Family history of head ache	No Father/Mother/ Sister/Brother Second degree relatives	91(68%) 35(26%) 9(6%)	33(70%) 11(23%) 3(7%)	124(68%) 46(25%) 12(7%)

[Table/Fig-1]: Clinical Profile of Migraine patients (n=182)

which was found in 182(64%) patients. 49% of the patients were in the age group of 29-44 years, 58% had migraine for a duration of 4 or more years and 42% had a frequency of headache of more than 15 times per month.

Eighty one percent of the patients had unilateral headache, the common sites of the pain being holocranial (26%) and parieto-temporal (24%). The commonest type of pain was the throbbing type (43%) and stress was the major triggering factor (42%). Analgesic medications relieved the headache in 37% of the patients. Phonophobia (29%), nausea (25%) and photophobia (24%) were the commonly associated symptoms.

A majority of the patients (68%) did not have any family history of headache.

The clinical characteristics at presentation of the patients who were diagnosed with tension headache have been summarized in [Table/Fig-2]. A total of 99 patients were found to be having tension headache, of which 74(75%) were females and 25(25%) were males respectively.

Forty nine percent had tension headache for duration of 4 or more years, 59% had a frequency of headache of more than 15 times per month and the average duration of each episode lasted for more than 24 hours in 39% of the patients. The commonest type of pain was the pressure like pain (44%) and the site of the pain was holocranial (70%).

Of the total study population, 3 were diagnosed to have cluster headache, out of which 2 were males and 1 was female.

DISCUSSION

Migraine and tension type headache were the two most common presentations in this clinical study. Epidemiological evidence from around the world has suggested that tension type headache

Variable	Category	Female (74)	Male (25)	Total (99)
Age at onset (in years)	13-28 29-44 >45	30(40%) 28(38%) 16(22%)	16(64%) 7(28%) 2(8%)	46(46%) 35(35%) 18(19%)
Duration of symptoms (in years)	<0.5 0.5-2 2-4 >4	8(11%) 12(16%) 26(35%) 28(38%)	3(12%) 2(8%) 13(52%) 7(28%)	11(11%) 14(14%) 49(49%) 35(36%)
Frequency of head ache (per month)	<5 6-14 >15	5(7%) 27(36%) 42(57%)	1(4%) 8(32%) 16(64%)	6(6%) 35(35%) 58(59%)
Average duration of each episode (in hours)	<1 1-12 12-24 >24	10(14%) 9(12%) 28(38%) 27(36%)	3(12%) 1(4%) 10(40%) 11(44%)	13(13%) 10(10%) 38(38%) 38(39%)
Site of pain	Unilateral Bilateral Orbital Frontal Parietotemporal Occipital Holocranial Hemicranial Neck and shoulders	8(11%) 66(89%) 2(3%) 1(1%) 1(1%) 1(1%) 58(78%) 4(6%) 7(10%)	3(12%) 22(88%) 2(8%) 1(4%) 2(8%) 1(4%) 12(48%) 1(4%) 6(24%)	11(12%) 88(88%) 4(4%) 2(2%) 3(3%) 2(2%) 70(70%) 5(5%) 13(14%)
Type of pain	Heaviness Pressure like Throbbing Stretching Pounding	27(36%) 31(42%) 6(8%) 7(9%) 3(5%)	7(28%) 12(48%) 1(4%) 3(12%) 2(8%)	34(34%) 43(44%) 7(7%) 10(10%) 5(5%)
Triggers/ aggravating factors	Sun light Stress Lack of sleep Sound Menstrual cycle Food related	4(5%) 56(76%) 3(4%) 2(3%) 7(9%) 2(3%)	2(8%) 16(64%) 2(8%) 1(4%) 0 4(16%)	6(6%) 72(73%) 5(5%) 3(3%) 7(7%) 6(6%)
Relieving factors	Lying down Darkness Silence Local pressure Analgesic medications Sleep	6(8%) 3(4%) 7(9%) 26(35%) 27(36%) 5(8%)	3(12%) 2(8%) 2(8%) 7(28%) 8(32%) 3(12%)	9(9%) 5(5%) 9(9%) 33(33%) 35(36%) 8(8%)

[Table/Fig-2]: Clinical Profile of Tension Headache patients (n=99).

was the most common cause of primary headache [5]. In our study, migraine was found to be the most common reason for the consultation of a doctor for headache. Few reasons that can explain this are lack of awareness of the tension type headache and lesser complications among the tension headache patients. Literature reports have suggested that the amount of disability which was associated with tension headache on a societal level was much higher than that which was associated with migraine, especially when it was measured on the basis of the absence from work [6]. However, there is a need for an increased awareness and an improved ability among the health practitioners and the primary care physicians to manage migraine and tension type headache, which are likely to help in decreasing the associated burden.

We found that females out numbered the males in the number of cases of both migraine and tension type headache. Migraine showed an approximately equal distribution in childhood; but in adults, women seemed to be more affected than the men [7].

The prevalence of migraine was found to be higher in the 29-44 year age group in our study and this finding was consistent with the findings of Köseoglu, E., et al [8].

The commonest type of pain which was observed in our study was throbbing (43%), followed by pressure like (30%), which was consistent with the findings of previous studies [9 -11] (Rasmussen et al. 1991a; Russell et al. 1996; Stewart et al. 2003.). About 30% of the migraine patients in our study had an average duration of headache of more than 24 hours, which was consistent with the finding of a previous study [11] (Stewart et al. 2003).

The associated symptoms and signs were more prominent and common in migraine headache, the commonest associated symptoms which were found in our study being phonophobia or photophobia and nausea, which was consistent with the findings of previous studies [9,12] [Rasmussen et al. 1991a; (Rasmussen and Olesen 1992a)].

Trigger factors are important in migraine management since their avoidance may result in a better control of the disorder. Several studies have reported stress, lack of sleep, and fasting as the most common triggering factors [13]. Stress (42%), sleep deprivation (26%) and food related factors (12%) were the most common triggering factors in our study, which were consistent with the findings of previous mentioned studies.

The frequency of dietary trigger factors which were reported by the migraine patients varied widely from 7 to 44% [13] (Robbins 1994). However, in our study, we found 12% of the migraine patients have diet as a triggering factor.

The average age of the onset of the tension type headache in our study was 13 to 28 years, which is similar to the findings of another study [14] (Lynberg et al 2005 b). The site of the pain was bilateral in 88% of the patients, which was consistent with the findings of other studies [15,9] (Iversen et al 1990: Rasmussen et al 1991).

The average duration of the tension type of headache in a majority of the patients of our study group, were 12-24 hours and >24 hours. However, in comparison to previous studies, the average tension type headache duration in our study ranged from 30 min to 7 days [16] (Olesen et al 2004), with the reported to median duration ranging from 4 to 13 hours [17,18] (Pryse-Phillips et al 1992: Jensen 1996).

LIMITATIONS

As our study was hospital based, the results of our study cannot be extrapolated to the general population. Secondary headache profiles were not included in this study.

Migraine and tension type headache are the most common clinical presentations of headache.

CONCLUSION

Headache disorders constitute a public health problem of enormous proportions, with an impact, both on the individual sufferer and on the society. Migraine and tension type headaches are the most common clinical presentations among all the types of headaches. Epidemiological knowledge is required to quantitate the significance of these disorders.

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