A Study of Type of Chronic Daily Headache in Tertiary Care Population: A Hospital Based Study

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ABSTRACT

**Background:** Chronic daily headache (CDH) is a broad term which includes groups of headache disorders and it is not a diagnosis. Primary and secondary chronic daily headache are the two common types of headaches. We planned the present study to assess and evaluate Chronic Daily Headache & its subtype’s distribution according to age & sex. **Materials & Methods:** The present study included assessment of pattern of Chronic Daily Headache in Tertiary Care Population. Consecutive patients with chronic daily headache (CDH) attending the neurology and medicine Out Patient Department were enrolled for the study. Here chronic daily headache refers to a group of disorders. So we could not define it but it characterizes by very frequent headache each around for 4 hours (≥15 days a month) including headache associated with medication overuse. CDH group include various primary and secondary headaches. All the results were recorded on excel sheet and analyzed by SPSS software. **Results:** A total 200 patients with Chronic Daily Headache have been studied. The maximum number of the patients (65%) was seen in the age group of 21-40 years. No patients were seen in 61-65 years. All 78 patients with Medication overuse Headache had either Chronic Migraine or Chronic Tension Type Headache. Mean age of CM patients was lower as compared to mean age of Chronic Tension Type Headache (CTTH) patients, this difference was statistically significant. **Conclusion:** Chronic daily headache frequency & its sub type CM & CTTH are higher in females as compared to males. Female to male ratio is higher in Chronic Migraine (CM) (5.3:1) as compared to CTTH (1.9:1). **Key words:** Chronic, Daily, Headache, Prevalence

INTRODUCTION

Chronic daily headache (CDH) is a broad term which includes groups of headache disorders and it is not a diagnosis. Primary and secondary chronic daily headache are the two common type of headaches. Generally, the term chronic daily headache mainly considered for primary chronic daily headache. Secondary Chronic Daily Headache includes causes like head trauma, space occupying lesion in brain & cranial vault, cervical spine disorders, and disorders which cause raised intracranial pressure. Primary Chronic Daily headache of shorter duration (<4 hours) includes primary stabbing headache, chronic paroxysmal hemicrania, hypnic headache, and chronic cluster headache. “Psychiatric comorbidity” and “chronic daily headache” association is bidirectional. Both can also increase the severity of each other. Chronic daily headache also causes impairment of quality of life (QOL). Impairment of QOL associated with headache was considered less significant than with other chronic disease. However, patients with chronic daily headache complaint about significant impairment in their quality of life. Besides chronic daily headache other factors such as depression, anxiety, stress & medication overuse can also affect the quality of life in patients with CDH. Hence; on the basis of above mentioned data, we planned the present study to assess and evaluate Chronic Daily Headache & it’s subtypes distribution according to age & sex.

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METHODS

The present study was planned in the department of Psychiatry of the Mahatma Gandhi Hospital, Bhilwara, Rajasthan, India which included assessment of pattern of Chronic Daily Headache in Tertiary Care Population. Ethical approval was taken from institutional ethical committee and written consent was obtained after explaining in detail the entire research protocol. Consecutive patients with chronic daily headache (CDH) attending the neurology and medicine Out Patient Department were enrolled for the study. The inclusion and exclusion criteria for the subjects in the study groups as given below:

Inclusion criteria
1. Age ≥ 18 years and ≤ 65 years

Exclusion criteria
1. Age < 18 years
2. Patients who have intracranial space occupying lesion.
3. Patients with a concomitant medical illness such as end-stage organ failures e.g. renal, cardiac, hepatic, respiratory, secondary causes of CDH

Diagnosis of chronic daily headache and its subtypes

We are doing the epidemiological study so it is necessary to know the definition of diagnosis to define who is suffering from disease and who is not. Here chronic daily headache refers to a group of disorders. So, we could not define it but it characterizes by very frequent headache each around for 4 hours (≥15 days a month) including headache associated with medication overuse. CDH group include various primary and secondary headaches. Here we have excluded secondary chronic headache and we are studying only primary chronic daily headache. It is of two type (1) longer duration ≥ 4 hours (2) shorter duration < 4 hours. The classification of CDH as a form of headache is based upon criteria given by Silberstein and Lipton (the SL criteria) and according to prevalence we include only 5 frequent subtypes of frequent headache and we consider definition according to ICHD-3 beta classification criteria.

• Chronic migraine headache
• Chronic tension-type headache
• Medication overuse headache
• Hemicrania Continua
• New daily persistent headache

So here chronic daily headache is characterized by very frequent headache each around for 4 hours (≥15 days a month) including headache associated with medication overuse. So to identify the type of headache we asked about duration of headache, duration of each headache attack, frequency of headache per month, associated symptoms, functional disability, analgesic use and response to treatment. All the results were recorded on excel sheet and analyzed by SPSS software. Chi-square test was used for assessment of level of significance. P-value of less than 0.05 was taken as significant.

RESULTS

The present study was conducted at Mahatma Gandhi Medical College and Hospital in Department of Medicine & Department of Neurology from September 2016 to September 2017. A total 200 patients with Chronic Daily Headache have been studied. In the study group, the age of the patients ranged from 18 yrs to 60 yrs. The maximum number of the patients (65%) was seen in the age group of 21-40 years. No patients were seen in 61-65 years. Mean age of CDH patients 34.21±11.82 years. In this study, Chronic Daily Headache is more common in female as compared to male. In both male and female highest number of patients were found in the same age group of 21-30 years. Mean age of male CDH patients 35.23±13.89 years. Mean age of female CDH patients 33.89±11.14 years. Mean age difference was not statistically not significant in context of gender (p-value= 0.4963). It is seen that out of 200 patients, 120(60%) patients had Chronic Migraine (CM), 80 (40%) patients had Chronic Tension Type Headache (CTTH), 78 patients had Medication Overuse Headache and no one had Hemicrania Continua or New Daily Persistent Headache. All 78 patients with Medication overuse Headache had either Chronic Migraine or Chronic Tension Type Headache. Mean age of CM patients was lower (32.23±11.49) as compared to mean age of CTTH patients (37.16±11.76), this difference was statistically significant (P=0.0036**).

DISCUSSION

Prevalence of chronic daily headache among adults is around 3 to 5 % in the different population. Females are affected 2 to 3 times more often than man. CDH results in significant pain and suffering, reductions in quality of life, and enormous economic costs to society. In this study, 200 patients of CDH ≥18 years to ≤65 year age group were studied. The maximum number of cases were found in 21-30 and 31-40 year age group (78 (39%) and 52 (26%) cases respectively). No cases were found in 61-65 year age group (0% cases). The mean age of patients who fulfilled CDH criteria was 34.21±11.82 years. Sex wise distribution of the cases, female was 153 (76.5%) and 47 (23.5) were males. Ratio being was 3.3:1 female: male. The mean age of female CDH subjects (33.89±11.14) was lower than male CDH subjects (35.23±13.89), but it was statistically insignificant (P-value=0.4963). In this study mean age was lower compared to western studies may be because of the ignorant behavior of older people towards headache in India. In a study conducted by Castillo J et al in 1998, 89 patients fulfilled criteria for CDH. Mean age was 50 years (range 18 to 84 years). They found the highest number of cases in 41 to 55 years age group and lowest in 65 year age group. 80 patients were female and 9 patients were male. Female to male ratio was 8.7:1.

In the current study, chronic daily headache subtypes were studied. Chronic migraine was the most common CDH subtype (n=120) which was seen in 60% of all CDH subjects. 80 subjects met the CTTH criteria, which were 40 % of all CDH subjects. 78 subjects also fulfilled MOH criteria, out of which 58 were CM subjects and 20 were CTTH subjects. 78 subjects had MOH either associated with CM or CTTH. No subject of another type of CDH were found in this study. The mean age of patients with CM was (32.23±11.49 years) and with CTTH was (37.16±11.76 years), P-value <0.0036. The mean age of CM was significantly lower than that of CTTH. This suggests CTTH affects at higher age compared to CM. Similar results were found in western studies(5,22). Out of 153 female CDH subjects, 101 had CM & 52 had CTTH. Out of 47 male CDH subjects, 28 had CTTH & 19 had CM. So higher female to male ratio was noted in CM (5.3:1) as compared to that of CTTH (1.9:1). This also suggests CM is more common in Females compared to CTTH & in males CTTH is more common than CM.
In one study done by Lu SR et al in Taiwan, they have taken 3377 participants from which 108 fulfilled the criteria for chronic daily headache which suggestive of the prevalence of 3.2%. Out of which higher prevalence in females (4.3%) as compared to males (1.9%). Chronic migraine was the most common subtype affected 60 subjects (55%) followed by chronic tension type headache which affected 48 subjects (44%). One case diagnosed to have new daily persistent headache. Among all of this of 37 (34%) subjects have overused analgesics and diagnosed medication overuse headache.[10]

**REFERENCES**