

Original Article

Chronic Daily Headache with Associated Psychiatric Comorbidity in Tertiary Care Population

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ABSTRACT:

Background: The term chronic daily headache is applied when the headache frequency is ≥ 15 days a month for ≥ 3 months. Chronic daily headache (CDH) is mainly associated with psychiatric comorbidity. The role of serotonergic system in migraine is documented in hypothesis. Hence; we planned the present study to assess the association of psychiatric morbidity in patients with Chronic Daily Headache. **Materials & methods:** The present study included assessment of psychiatric morbidity among patients with Chronic Daily Headache in Tertiary Care Population. Patients were diagnosed with chronic daily headache and its subtypes. Two psychiatry comorbidity associations were assessed in this study in patients who fulfilled criteria of chronic daily headache. Those psychiatry comorbidities are Depression and Anxiety. The Hamilton Depression Rating Scale (HAM-D) was used to assess the severity of depressive disorder. All the results were evaluated by SPSS software. **Results:** Psychiatric Comorbidity was present in 75.5% of patients, Highest in age group of 31-40, 41-50 year age group. Lowest in 51-60 year age group CTTH has more associated psychiatry comorbidity than CM. **Conclusion:** Psychiatric comorbidity is significantly associated with CDH. CDH's subtype chronic migraine (CM) & Chronic Tension Type Headache (CTTH) are associated with psychiatric comorbidity in 65.8% and 90% patients respectively.

Key words: Chronic Daily Headache, Morbidity, Psychiatric

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INTRODUCTION

The term chronic daily headache is applied when the headache frequency is ≥ 15 days a month for ≥ 3 months". The Chronic Daily Headache divided into two types: (1) Primary Chronic Daily Headache and (2) Secondary Chronic Daily Headache varieties. Primary CDH is not attributable to any systemic or structural cause.¹⁻³ Primary Chronic Daily Headache is often divided into long or short duration types of Primary Chronic Daily Headache. "Primary chronic daily headache of long duration includes (≥ 4 hours) chronic migraine, chronic tension-type headache, hemicrania continua, new daily persistent headache and medication overuse headache."^{4,5}

Chronic daily headache (CDH) is mainly associated with psychiatric comorbidity. The term "comorbidity" coined by Feinstein in 1970 is defined as the presence of "a distinct additional clinical entity". 60 to 90% of patients with chronic daily headache come with psychiatric comorbidity, which is higher in women as compared to men. "Anxiety and depression" have been noted as most common psychiatric comorbidities of "Chronic Daily Headache".^{6,7} The role of serotonergic system in

migraine is documented in hypothesis. The role of serotonergic system in depression is also given in hypothesis. This suggests that both share a common biological predisposition. "Psychiatric comorbidity" and "chronic daily headache" association is bidirectional. Both can be a cause of one another. Both can also increase the severity of each other.^{8,9} Hence; we planned the present study to assess the association of psychiatric morbidity in patients with Chronic Daily Headache.

MATERIALS & METHODS

The present study was planned in the department of Psychiatry of the medical institution and included assessment of psychiatric morbidity among patients with Chronic Daily Headache in Tertiary Care Population. We obtained ethical approval was taken from institutional ethical committee along with written consent from all the patients after explaining in detail the entire research protocol. We evaluated consecutive patients with chronic daily headache (CDH) attending the neurology and medicine Out Patient Department. The inclusion and exclusion criteria for the subjects in the study groups as given below:

Inclusion criteria

1. Patients in between the age group of 18 years to 65 years.

Exclusion criteria

1. Patients with intracranial space occupying lesion
2. Patients with history of any other systemic illness
3. Patients with any known drug allergy

Methodology

The Present study was conducted in department of Psychiatry, Mahatma Gandhi Hospital, Bhilwara, Rajasthan, India. Patients were diagnosed with chronic daily headache and its subtypes. Two psychiatry comorbidity associations were assessed in this study in patients who fulfilled criteria of chronic daily headache. Those psychiatry comorbidities are Depression and Anxiety. To diagnose Generalised Anxiety Disorder we considered DSM-5 criteria for generalized anxiety disorder. The Hamilton Anxiety Rating Scale (HAM-A) was used to assess the severity of anxiety disorder. To diagnose Depression we considered DSM-5 criteria. The Hamilton Depression Rating Scale (HAM-D) was used to assess the severity of depressive disorder.⁸ All the results were evaluated by SPSS software. We used student t test for assessment of level of significance.

RESULTS

In this study, Psychiatric Comorbidity was present in 75.5% of patients, Highest in age group of 31-40, 41-50 year age group. Lowest in 51-60 year age group CTTH(90%) has more associated psychiatry comorbidity than CM(65.8%), Both Anxiety & Depression is more common in CTTH(90% & 65% respectively) as compared to CM(55% & 46.6% respectively).

Table 1: Chronic Daily Headache association with psychiatric comorbidity (PC) with age wise distribution

AGE GROUP (yrs)	CDH	PC	PERCENTAGE
<21	20	14	70%
21-30	78	56	71.79%
31-40	52	47	90%
41-50	26	22	84.61%
51-60	24	12	50%
>60	0	0	0%
TOTAL	200	151	75.5%

Table 2: Psychiatric comorbidities association according to subtypes

Migraine Type	PC	Anxiety	Depression
CM	79 65.8%	66 55%	56 46.6%
CTTH	72 90%	52 90%	52 65%
CDH	151 75.5%	108 69%	108 54%

DISCUSSION

Chronic daily headache is one of common headache problem seen in neurology and medicine out patient department. Its prevalence is around 3 to 5% in general population. It is often associated with many comorbid conditions, out of all psychiatric comorbid conditions are most common. They play significant role in development and persistence of chronic daily headache. The prevalence of psychiatric comorbid condition in patient with chronic daily headache is around 64 to 90% depending on type of chronic daily headache.^{10,11}

Mostly psychiatric comorbid conditions are in form of anxiety and mood disorder like depression. These psychiatric comorbidities are higher in woman with chronic daily headache than in man. Association of psychiatric comorbidity in chronic daily headache can be explained by shared mechanism in parts of central nervous system between pain and affective disorder, perhaps involving limbic activation. Migraine and mood disorder share common pathophysiology like decrease in serotonin concentration, an increase of urinary 5-hydroxytryptamine and a possible increase of 5-hydroxyindolacetic acid. Psychiatric comorbidity often makes difficult to treat chronic daily headache. Psychiatric comorbidity and chronic daily headache are always bi-directional. This can be explained by depressive patients have decrease threshold for pain causes more headache. Also this decrease threshold of pain leads to analgesic overuse for relief of headache. Early diagnosis and treatment of psychiatric comorbidity helpful because many studies have documented that Psychiatric comorbidity is risk factor for onset and chronicization of primary headache.^{12,13}

Psychiatric comorbidity & CDH are frequently associated with each other. A mutual cause and effect relationship between these two can co-exist. In the present study, we studied two psychiatric comorbidity association (1) anxiety (2) depression with CDH. Out of 200 CDH subjects, 151 (75.5%) had associated psychiatric comorbidity. Highest association of psychiatric comorbidity was found in 31-50 year age group & lowest in 51-60 age group. Of the 153 females of CDH studied, 116 (76.82%) had psychiatric comorbidity, whereas 35 (74.46%) of the 47 male studied had psychiatric comorbidity. Of the 151 subjects with psychiatric comorbidity, 95 had dual (both anxiety & depression) psychiatric comorbidity, whereas the remaining 56 had a single psychiatric comorbidity, 43 had anxiety & 13 had depression. Anxiety was present in 138 (69%) subjects & depression was present in 108 (54%) subjects out of 200 patients. 66 (55%) subjects had anxiety & 56 (46.6%) had depression amongst 120 CM subjects. Out of 80 CTTH subjects, 72 (90%) subjects had anxiety & 52 (65%) had depression. This signifies that psychiatric comorbidity was more frequently associated with CTTH as compared to CM in this study.

Study done by Juang K-D et al in 1998 on 261 patients with chronic daily headache showed significant association of Psychiatric comorbidity. In this sample 152 patients (58%) with chronic migraine, 92 (35%) with

chronic tension type headache, 7(2.6%) with new daily persistence headache, 5 with hemicrania continua and 5 with unclassified chronic daily headache. patients with chronic migraine had higher frequency of depressive disorder than patient with chronic tension type headache. however the difference was not significant (70% versus 59%). Although anxiety disorder was significantly higher in chronic migraine than in chronic tension type headache (43% versus 25%).⁸

Study done by Gentili C et al in 2005 on patients of primary daily headache showed significant association of Psychiatric Comorbidity. It showed that 56%patients had anxiety disorder associated with chronic daily headache and 39%patients have depressive disorder. They used Hamilton rating scale for depression and Hamilton rating scale for anxiety to diagnose.¹⁴ Study done in Iran by Fakhrudin Faizi et al on 413 patients of chronic daily headache showed significant association of Psychiatric comorbidity. Patients with chronic daily headache reported Psychiatric problems such as stress in 372 (90.1%) patients, having anxiety disorder in 362 (87%) patients, sleep problem in 323(78.2%) patients and depressive disorder in 261 (63.2%) patients.¹⁵

CONCLUSION

Psychiatric comorbidity is significantly (75.5%) associated with CDH. CDH's subtype CM & CTTH are associated with psychiatric comorbidity in 65.8% and 90% patients respectively. Psychiatric comorbidity is more common in CTTH as compared to CM. This suggests bidirectional relationship between CDH and psychiatric comorbidity. So one should also focus on concomitant psychiatric illness and treat CDH & psychiatric comorbidity simultaneously.

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