e-ISSN: 0975-1556, p-ISSN:2820-2643

Available online on www.ijpcr.com

International Journal of Pharmaceutical and Clinical Research 2023; 15(8); 1484-1488

Original Research Article

Prevalence of Anxiety and Depression among Patients with Chronic Tension Type Headache

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Received: 30-5-2023 / Revised: 30-06-2023 / Accepted: 30-07-2023
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Conflict of interest: Nil

Abstract:

Background: Headache is one of the most common reason patients seek medical attention every year about 80 percent of population has a least one headache and 10 to 20 percent go to physician with headache as their primary complaint. Headaches are also a major cause of absenteeism from work and avoidance of social and personal activities. Anxiety and depression are recognized co-morbidities in patients with tension type headache but studies among patients with TTH (tension type headache), have shown variable results, hence the need for further comprehensive studies on chronic TTH. The presence of psychiatric co-morbidity in headache further complicates and makes difficult headache management and portends a poorer prognosis for headache treatment.

Material and Methods: Cross sectional study was conducted among 95 patients attending outpatient department of psychiatry in medical college and hospital for 18 months from April 2015 to October 2016. Patients from psychiatric outpatient department complaining of headache in the age group 18 yrs to 60 yrs included in this study after their written consent and after applying inclusion and exclusion criteria. Subjects were recruited on a purposive basis from the OPD of Psychiatry and Medicine Department in Dr. Panjabrao deshmukh Memorial Medical College, Amravati. Recruitment was accomplished by using inclusion and exclusion criteria's and consent was taken for the participation in the study. The recruited subjects were diagnosed for chronic tension type headache according to international classification of headache disorder (ICDH) 3rd (beta version).

Results: Depressive disorder followed by anxiety disorder was most common in chronic tension type headache. The prevalence of anxiety was 16.84% in patient of CTTH and mild degree of anxiety was most common. Depression was found in 52.63% of patient of chronic tension type headache. Mild depression (68%) out of all depressive patient were most prevalent inpatient suffering from chronic tension type headache. The comorbidity (anxiety and depression) were more prevalent in unemployed/Housewife patients.

Conclusion: From the our study findings, it is clearly evident from this study that, the patient with chronic tension type headache have high prevalence of depression and anxiety, the proper psychiatry screening and detail evaluation is required, so that the depression and anxiety detected in early stages and treated which further can improves the prognosis of chronic tension type headache.

Keywords: Prevalence, Anxiety, Depression, Tension type headache.

Introduction

Headache is one of the most common reason patients seek medical attention every year about 80 percent of population has a least one headache, and 10 to 20 percent go to physician with headache as their primary complaint.[1] Headaches are also a major cause of absenteeism from work and avoidance of social and personal activities. Moreover, in any psychiatry disorders, including anxiety and depressive disorders, headache is frequently a prominent symptoms patients with headaches are often referred to psychiatrist by primary care physician and neurologist after extensive biomedical workups, which often include magnetic resonance imaging (MRI) of the head. Most workups for common headache complaints have negative findings, and such results may be frustrating for both patient and physician. physician not well versed in psychological medicine may attempt to reassure such patient by telling them that they have no disease. But this

reassurance may have the opposite effect – it increases patient's anxiety [2]. Headache is a common neurological disorder that ranks among the top 10 most disabling conditions for both men and women worldwide[3,4].

Headache patients, especially those with migraine or chronic daily headache, shows reduced quality of life[5,6], and the burden caused by any headache is high with regard to lost workdays, lost days with household activities, lost family, social and leisure activities[7,8]. The association between headache and psychiatric disorders is common with depression, bipolar disorders, and anxiety, and somatoform disorders being the commonest complaints. Psychiatric comorbidity has been also observed in patients with tension-type headache and may be explained by affective distress, personality disorders, and maladaptive coping. Tension type headache (TTH) is one of the most common primary headaches, with a prevalence ranging from 30% – 78% worldwide [9,10,11,12], and among them majority have infrequent episodic type and 2%-3% patients have chronic type. It is also the least studied type of headache [9]. Although it is less intense in severity, the burden of disability and the overall cost of chronic tension type headache is greater than that of migraine [9,10].

Anxiety and depression are recognized co-morbidities in patients with tension type headache. Another study conducted in 2000, on chronic headaches showed that 64% of patients with chronic TTH had psychiatric co-morbidities., among whom 51% had major depression, 8% had dysthymia, 22% had panic disorder and 1% had generalized anxiety disorder [13]. Further, a study published in 2003, compared the prevalence of anxiety and depression in chronic and episodic types of TTH. It was found that in chronic TTH, anxiety occurred in 44% and depression in 40% of patients, while in episodic TTH, anxiety occurred in 60% and depression in 32%[14]. The HADAS Study, published in 2011, compared the prevalence of psychiatric co-morbidities in migraine without aura, TTH and combined headache. The study showed that 12.8% of patients with TTH had psychiatric co-morbidities, of whom, 67% had depressive episode, 19.3 had anxiety disorders, 5.5% had panic disorder and 1.1% had obsessive compulsive disorder[15]. Anxiety and depression are recognized co-morbidities in patients with tension type headache [15,16], but studies among patients with TTH, have shown variable results, hence the need for further comprehensive studies on chronic tension type headache. Also there are very few studies on chronic TTH with psychiatric co-morbidities in India. The presence of psychiatric co-morbidity in headache further complicates and makes difficult headache management and portends a poorer prognosis for headache treatment.

Objectives: To study the prevalence of anxiety and depressive disorders in patients of chronic tension type headache.

Material and Methods: Cross sectional study was conducted among 95 patients attending outpatient department of psychiatry and medicine department in medical college and hospital for 18 months from April 2015 to October 2016. Patients complaining of headache in the age group 18 yrs to 60 yrs were included in this study after their written consent and after applying inclusion and exclusion criteria.

Inclusion criteria:

- Patients aged >18 and < 60 year.
- Patients diagnosed with chronic TTH as per ICHD-3 (beta version)
- Patients consenting for the study.

Exclusion criteria:

- Patients with severe mental disorders like, dementia, schizophrenia and mental retardation.
- Patients with severe neurological disorders like, space occupying lesions, head injuries, degenerative conditions.
- Pregnancy.

Methods: Subjects were recruited on a purposive basis from the out-patient Department of Psychiatry and medicine in out-patient Department of Psychiatry and Medicine in Dr. Panjabrao deshmukh Memorial Medical College, Amravati. Recruitment was accomplished by using inclusion and exclusion criteria's and consent was taken for the participation in the study. The recruited subjects were diagnosed for chronic tension type headache according to international classification of headache disorder (ICDH) 3rd (beta version).

All subjects were evaluated using socio-demographic proforma, Composite International Diagnostic Interview Paper & Pencil Instrument (CIDI V-3.0 PAPI V-7.1), (DSM-5) self-related level 1 cross cutting symptoms measure adults apply to every subjects for assessment of mental health domains, subject which are positive in domain of depression and anxiety, then we apply Diagnostic and statistical manual of mental disorders fifth edition (DSM-5) level-2 - depression-adult, and level 2- anxiety-adult also clinical interview for diagnosis. Subjects who were diagnose for anxiety and depression after that we were applied Hamilton Depression rating scale and Hamilton anxiety rating scale respectively. The order of presentation of instruments was kept identical for all subjects. Data were entered in Microsoft excel sheet and analyzed by using

statistical software SPSS version 16 and by using appropriate test of significance.

Observation and Results:

Table 1: Distribution of Patients of anxiety and depression in TTH

Sr. No.	comorbidity (anxiety and depression)	No. of Patients	Percentage
1.	Co morbid Illness	59	62.10
2.	No co morbid Illness	36	37.9
	Total	95	100%

Table 1 shows, Out of 95 patients 59(62.10%) patients had at least one comorbidity.

Table 2: Distribution of comorbidity (anxiety and depression) according to gender

Sex	Comorbidity (anxiety and depression)	Co morbidity not present
Male	16 (27.12%)	18 (50%)
Female	43 (72.88%)	18 (50%)
Total	59 (100%)	36 (100%)

In our study out of 59 patients of comorbidity 72.88 % (n=43) were female and 27.12% were male.

Table 3: Occupation wise distribution of comorbidity (anxiety and depression) in chronic TTH patients

Occupation	Comorbidity present	No psychiatry comorbidity
Labourer/Farmer	20(33.9%)	08(22.22%)
Service	10(16.95%)	19(52.78%)
Student	03(5.08%)	02(5.56%)
Unemployed/Housewife	26(44.07%)	07(19.44%)
Total	59(100%)	36(100%)

From the above table, we came to know about 44.07% study subjects having comorbidity (anxiety and depression) were either housewife or unemployed persons and only 5.08% person having comorbidity were student. Thus, we can conclude that psychiatric comorbidity (anxiety and depression) is more in the subjects either housewife or unemployed. The discrepancy in observed findings may be due to number of students (n=5, 5.26%) in our study too small to concluded.

Table 4: Prevalence of co-morbid depression in chronic tension type headache (TTH) patients

Depression diagnose on test	No. of patients	Percentage
Depression present	50	52.63
Depression not present	45	47.37
Total	95	100

Above table shows that patients who were positive on DSM-5 self-related level 1 cross cutting symptoms measure adults on domain of depression, we would apply DSM level 2 for depression which shows depression is present in 50 (52.63%) patients of chronic tension type headache.

Table 5: Prevalence of co-morbid anxiety in chronic tension type headache (TTH) patients

Anxiety diagnose on test	No. of patients	Percentage (%)
Anxiety present	16	16.84
Anxiety not present	79	83.16
total	95	100

In our study Patients who positive on DSM-5 self-related level 1 cross cutting symptoms measure adults on domain of anxiety we apply DSM level 2 anxiety for adult we found 16(16.84%) of patient having anxiety disorder where 83.16% does not have anxiety.

Discussion

As the concept of 'General Hospital Psychiatry' or better put 'consultation liaison psychiatry is gaining around, more and more researches focusing on psychiatric aspects of medical diseases is coming forth. This study was undertaken to contribute to the growing body of literature in neuropsychiatry especially as data in this respect is limited for Indian population.

This study was cross sectional in design; subjects were recruited on a purposive basis from the out-patient Department of Psychiatry and Medicine in Dr. Panjabrao deshmukh Memorial Medical College, Amravati.

The study subjects were recruited on a purposive basis. The majority of patients in our study were similar in age group of 20-35 years and 36-50 years (47.4%). It is noticeable that patients aged more than 36 years of age shows high rate of psychiatry morbidity, this finding was congruent with the findings of Russell et al., study shows CTTH is rare in persons 12–14 years old, and the prevalence of CTTH increased until age 39 and then declined in both sexes.[17] The recruited subjects in our study 35.8% (n=34) were male and

64.2% (n=61) were females, the prevalence of psychiatric co morbidity in male was 16(17.12%) and among females were 43(72.88%). Singh, Ajai Kumar et al. study done on Indian population shows CDH accounted for 28% of all headache patients. The mean age of presentation was 30.2 ± 10.3 years, male: Female ratio of 28:64 and mean duration of 4.56 ± 0.56 years illness.[18] In our study About 40.7% subjects having psychiatric morbidity were educated up to primary & secondary level, while only 22% subjects having psychiatric morbidity were uneducated (p-value = 0.135). About 44% subjects having depression in chronic TTH were educated up to Primary + Secondary level. Also, 24% subjects having depression were uneducated. But, the association between education & depression in Chronic TTH subjects were not found to be statistically significant (p-value = 0.022). About 50% subjects having anxiety in the chronic TTH patients were educated up to graduation + Higher secondary while, only 18.8% subjects having anxiety were uneducated (p-value = 0.901). this may be attributed to the influence of increase stressors and factors such as searching of job/ service, increase level of competition, expectation from family members, busy schedule and competitive exams increase burden of study which creates tension. Schramm et al. study showed that patients with CTTH had a higher intake of alcoholic beverages and a lower education.[19]

Psychiatric comorbidity in chronic tension type headache:

This study was supportive to many previous study results which stating higher prevalence of psychiatry co morbidity especially depression and anxiety in chronic tension type headache patients. We found 62.1% (n=59) patient had either of anxiety or depression, where 37.9% (n=36) did not had any co-morbidity. In our study we found out of 95 patients of chronic tension type headache 50(52.63%) patients have depression and 45(47.37%) patients do not have depression. Also, we found 16.84% (n=16) patients had anxiety and 83.16% (n=79) patients did not have any anxiety. This prevalence estimate was consistent with previous study Zebenholzer et al. [20] which was done in eight Austrian headache centre shows significantly higher prevalence of anxiety and depression in CTTH that is 64% then episodic headache (41%). A recent study by Bhuvana R.C. et al. [21] on Indian population found 74% of psychiatric comorbidity in patients of chronic daily headache and depression were most prominent. But Lampl et al. [22] found that anxiety was weakly co morbid with tension type headache patients and depression was not present or not co-morbid with tension type headache.

Conclusion

From the observation and discussion, it is clearly evident from this study that, the patient with chronic tension type headache have high prevalence of depression and anxiety, the proper psychiatry screening and detail evaluation is required, so that the depression and anxiety detected in early stages and treated which further can improves the prognosis of chronic tension type headache. These results emphasize the importance of determining depression and anxiety in clinical prognosis and treatment of chronic tension type headache and propose new research in treatment approaches for the agenda.

Acknowledgement: We thank the help and guidance from experts and contributions from all the researchers. We are also grateful to all the patients who participated in the study.

Authors Contribution:

Tushar Talhan: Conception and design, definition of intellectual content, literature search, manuscript preparation, editing, review, and own dissertation; Ritesh Upadhyay: Drafted the manuscript, editing and review; Chanchlesh Dehariya: Manuscript preparation; Dileep Dandotiya: Data acquisition, data analysis, statistical analysis, manuscript preparation.

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