

Anxiety and Depression as Co-morbidities in Patients with Primary Headache

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Abstract

Introduction: Headache is a common neurological disorder and psychiatric comorbidity is very common in primary headache in which anxiety and depression is more common. Data of patients presenting with primary headache and psychiatric comorbidity is scanty in Nepal. The aim of the study was to study the socio-demographic and clinical profile of patients with primary headache, and to study the frequency and pattern of anxiety and depression as comorbidities among these patients.

Material And Method: The study was done at the headache clinic in the Department of Psychiatry at Devdaha Medical College and Research Institute, Rupandehi, Nepal. All out-patients attending our clinic over a period of six months (January 2017-June 2017) with a diagnosis of primary headache were included in the present study. Demographic and clinical profiles of these patients were noted in a specially designed socio-demographic and clinical data sheets prepared for the present study.

Results: Among the total patients (N=150), 86 (57.3%) were in the age group 20-39 years. Majority 118 (78.7%) cases were female while 32 (21.3%) cases were male patients. 69.3% cases had migraine headache and 28.7% cases had tension type headache. Comorbid psychiatric illness was present in 80 (53.33%) cases among which Anxiety disorder was the most common diagnostic category (31.3%) followed by depressive disorders (22.0%).

Conclusion: Anxiety and depression (53.3%) as comorbid disorder is prevalent among those presenting with primary headache and anxiety spectrum disorder was more than depressive disorder.

Keywords: Primary Headache, Comorbidity, Depression, Anxiety

INTRODUCTION

Headache is a common neurological disorder that ranks among the top 10 most disabling condition worldwide and at least 40 percent of individuals in the world are suffering from severe disabling headache.^{1,2} Tension-type headache (TTH) and migraine are the common forms of primary headache in population prevalence and are considered distinct entities by the International Headache Society.³ Psychiatric disorders occur with at least two to three-fold greater frequencies among the patients presenting with headache than among

general population.^{4,5} The reported rate of psychiatric comorbidity ranged between 69-87% in migraine and 45-56% in tension type headache.^{6,7,8,9} Studies have shown that psychiatric comorbidity contributes to poor treatment outcomes and poor prognosis and also plays a significant role in the development of drug resistance and chronicity of primary headache.¹⁰⁻¹⁶

A study from Nepal, conducted by Risal A et al (2016) is the only nationwide study in this region so far, showed high prevalence of both headache and psychiatric disorders, are

excessively comorbid with anxiety and depression.¹⁷ In Nepal, large number of patients present to general practitioners with predominant complaint of headache. Knowledge of the psychiatric morbidity in headache helps to reduce burden of headache world-wide.

Thus, understanding the clinical patterns of headache and its association with psychiatry disorders is important to provide integrated and effective treatment. In this above background the present study has been undertaken with the aim was to study the socio-demographic and clinical profile of patient diagnosed with primary headache and to study the frequency and pattern of psychiatric co-morbid illnesses amongst them since very few studies are reported on primary headache from Nepal.

MATERIAL AND METHOD

It is a hospital based study of patients with headache in Psychiatry outpatient department of Devdaha Medical College and research centre, Rupandehi, Nepal.

Those who are diagnosed to have primary headache and are ready to give the consent were included in the study. Patients with secondary

headache due to any other underlying medical condition such as Head and neck trauma, Cranial or cervical vascular disorder, intracranial disorders were excluded. The study was approved by the institutional ethical clearance and informed consent was obtained from all the patients. Structured proforma for recording socio-demographic variables, ICD 10 (International Classification of Mental and Behavioral disorders), ICHD -II (International Classification of Headache Disorders, 2nd edition) were used as tools.

Total of 150 cases were studied in period of six months (January 2017-June 2017). Details of these patients including socio-demographic data, type of headache and psychiatry comorbidity considered was analyzed using SPSS-23.

RESULT

The study showed that the majority of the cases were from the age group 20-39 which constituted 86 (57.3%) of the total cases followed by 29.3% in the age group of up to 40-59. The mean age of the respondent was 35.71. Majority 118(78.7%) cases were female while 32(21.3%) cases were male. 134 (89.3%) cases were married while 14(9.3%) were unmarried. Occupational

Table 1: Distribution relationship of primary headache with different socio-demographic variables

Socio-demographic variable		Primary headache			Total	p value
		migraine headache	tension type headache	cluster headache		
Gender	Male	19	13	0	32(21.3%)	0.18
	Female	85	30	3	118(78.7%)	
Age range of the respondent	0-19 years	11	2	0	13(8.7%)	0.185
	20-39 years	59	27	0	86(57.3%)	
	40-59 years	29	12	3	44(29.3%)	
	60 and above	5	2	0	7(4.7%)	
Educational status	illiterate	22	8	1	31(20.7%)	0.862
	Primary	25	9	1	35(23.3%)	
	secondary	36	15	1	52(34.7%)	
	intermediate	18	7	0	25(16.7%)	
	university	3	4	0	7(4.7%)	
Marital status	Married	92	39	3	134(89.3%)	0.975
	unmarried	10	4	0	14(9.3%)	
	separated	1	0	0	1(0.7%)	
	widow/widower	1	0	0	1(0.7%)	
Occupation	Farmer	12	7	0	19(12.7%)	0.649
	homemaker	61	21	3	85(56.7%)	
	business	10	3	0	13(8.7%)	
	Service	9	7	0	16(10.7%)	
	Student	11	3	0	14(9.3%)	
	unemployed	1	2	0	3(2.0%)	

status of the population was: homemaker (56.7%), farmer (12.7%), service (10.7%), student (9.3%), business (8.7%). 34.7% of the study population had achieved secondary level education followed by 23.3% achieving primary level. 20.7% were illiterate. However there was no significant association between socio-demographic variables and different type of headache as shown in table 1.

Table 2. shows that 69.3% (104) had migraine headache, 28.7%(43) had tension type headache and 2%(3) had cluster headache.

Table 2: Distribution according to types of headache

Type of headache	Frequency	Percentage
Migraine headache	104	69.3%
Tension type headache	43	28.7%
Cluster headache	3	2%

Table 3: Relationship of Headache with Comorbid Illness

Diagnosis	Comorbidity present		Comorbidity absent	Total
	anxiety disorder	Depression		
Migraine	31(29.80%)	28(26.29%)	45(43.26%)	104
Tension type headache	15(34.88%)	4(9.30%)	24(55.81%)	43
Cluster headache	1(33.33%)	1(33.33%)	1(33.33%)	3
Total	47(31.3%)	33(22.0%)		150

Table 3. Out of total 104 cases of migraine, 31(29.80%) cases had anxiety disorder, 28(26.29%) had depressive disorder and among 43 cases of tension type headache 15(34.88%) had anxiety disorder and 4(9.30%) cases had depressive disorder. Around 31.3% had anxiety disorder and 22% had depressive disorder. The mean age of the respondent 35.71 yrs.

DISCUSSION:

86 (57.3%) patient with headache has been found in 20-40 years of age (mean age 35.71) year. The findings are consistent with findings in Bangladesh¹⁸ and India¹⁹, probably because of

stressful life and predilection of migraine at this age group.

78.8% were female subjects. The high prevalence among female were found in Indian studies²⁰, and in study in Greece²¹ and Portugal²².

Migraine headache (69.3%) , tension type of headache 28.7%, cluster headache 2% were type of primary headache which are similar with Indian study at Kashmir²³ and Karnataka.²⁴ However our study contrast with the other studies where tension type headache was more prevalent than migraine.^{19,21,22}

Anxiety 31.3%, depression 22.0% as comorbid condition (53.3%) in primary headache in our study is supported by other findings. In study done at Karnataka and Kashmir which showed the psychiatric comorbidity 74% and 47% respectively.^{19,22} Psychiatric co-morbidity in subjects of migraine and TTH in our study was 56.73% and 44.18%. Many other studies are in line with our findings. Bera CS et al reported that, the psychiatric co-morbidity in subjects of migraine and TTH was 62.5% and 60% respectively with no differences between both

the groups. However, comorbidities were much higher as compared to healthy controls (22.5%) in their study.²⁴ The Lucknow study showed that psychiatric co-morbidity was seen in 53.3% of the patients presenting with chronic daily headache.²⁵

In migraine, anxiety was the common comorbid illness 29.80% and 26.29% had depression. Similar

results were reported by Breslau & Davis, Sandriny et al and Gupta et al.²⁷⁻²⁹ In tension type headache , anxiety was the common comorbid illness (34.88%) and 9.3% had depression. Similar results were present in study of Heckman BD.³⁰

The limitation of our study is that besides anxiety and depression other psychiatric comorbidity was not looked for.

CONCLUSION:

Anxiety and depression (53.3%) as comorbid disorder is prevalent among those presenting with primary headache and anxiety spectrum disorder was more than depressive disorder. These high rates of psychiatric comorbidity with

migraine and TTH highlight the importance to maintain diagnostic vigilance in headache patients. However long term community based study is required for further understanding of the scenario.

CONFLICT OF INTEREST: None

REFERENCES:

1. Hussain AAM, Mohit MA, Ahad MA, Alim MA. A Study on Psychiatric Co-morbidity among the Patients with Migraine. *TAJ*. 2008;21(2):108-11.
2. Amanda K, Kathleen M. Physical and Mental Comorbidity of Headache in a Nationally Representative Sample of U.S. Adults. *Psychosom Med*. 2008;70(7):773-80.
3. Goadsby PJ, Raskin NH (2008) Headache. In: Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscalzo J, editors: *Harrison's Principles of Internal Medicine*. 17th edn. McGraw-Hill Companies, United States of America, Inc. p. 95-107.
4. Lipchik GL, Penzien DB. Psychiatric comorbidities in patients with headaches. *Semin Pain Med* 2004; 2: 93-105.
5. Lake AE, Rains JC, Penzien DB, Lipchik GL. Headache and psychiatric comorbidity: historical Context, clinical implications, and research relevance. *Headache* 2005; 45: 493-506.
6. Puca F. Psychological and social stressors and psychiatric comorbidity in patients with migraine without aura from headache centers in Italy: A comparison with tension-type headache patients. *J Headache Pain* 2000;1:17-25.
7. Puca F, Guazzelli M, Sciruicchio V, Libro G, Sarchielli P, Russo S, et al. Psychiatric disorders in chronic daily headache: Detection by means of the SCID interview. *J Headache Pain* 2000;1:Suppl: 33-7
8. Corchs F, Mercante JP, Vera Z, Guendler VZ, Vieira DS, Masruha MR, et al. Phobias, other psychiatric comorbidities and chronic migraine. *ArqNeuropsiquiatr* 2006;64:950-3.
9. Guidetti V, Galli F, Fabrizi P, Giannantoni AS, Napoli L, Bruni O, et al. Headache and psychiatric co-morbidity: Clinical aspects and outcome in an 8-years follow up study. *Cephalgia* 1998;18:455-62.
10. Lake AE, Rains JC, Penzien DB, Lipchik GL. Headache and psychiatric comorbidity: Historical context, clinical implications and research relevance. *Headache*. 2005;45:493-506.
11. Antonaci F, Nappi G, Galli F, Manzoni GC, Calabresi P, Costa A. Migraine and psychiatric comorbidity: a review of clinical Findings. *J Headache Pain*. 2011;12:115-25.
12. Lake AE 3rd. Behavioral and non pharmacologic treatments of headache. *Med Clin North Am* 2001;85:1055-75.
13. Lipchik GL, Rains J. Psychiatric and psychologic factors in headache. In: Loder E, Marcus DA, editors. *Migraine in Women*. Hamilton:Decker; 2004. p. 14 4-64.
14. Lipchik GL, Penzien DB. Psychiatric comorbidities in patients with headache. *Semin Pain Med* 2004;2:93-105.
15. Gentili C, Panicucci P, Guazzelli M. Psychiatric comorbidity and chronicisation in primary headache. *J Headache Pain*. 2005 Sep;6(4):338-40.
16. Mullin K, Dawn C. Buse, C. Mark Sollars, and Richard B. Lipton. Epidemiology of the psychiatric comorbidities of headache. Cambridge University Press 978-1-107-02620-9 - *The Neuropsychiatry of Headache* Edited by Mark W. Green and Philip R. Muskin Excerpt.
17. Risal A, Manandhar K, Holen A, Steiner TJ, Linde M. Comorbidities of psychiatric and headache disorders in Nepal: implications from a nationwide population-based study.. *The Journal of Headache and Pain* (2016) 17:45. DOI 10.1186/s10194-016-0635-8.
18. Lipton RB, Mansur H. Headache, study of 3350 cases. *Bangladesh J Neuroscience*. 2001;17(1):1-5.
19. Bhuvana RC. *International Journal of Research in Medical Sciences*. Int J Res Med Sci. 2017 Jan;5(1):321-5
20. Mitsikostas DD, Thomas AM 1999 Co-morbidity of headache and depressive disorders. *Cephalgia* 19:211-7.
21. Martins V, et al. Psychiatric comorbidities associated with headaches, *Acta Med Port* 2015 Jan-Feb;28(1):44-50.
22. Shoib S, Mushtaq R, Ahmad R. Recognizing Risk of Psychiatric Comorbidity in Headache: Looking for Symptoms of Anxiety and Depression in Headache: A Study from General Hospital in Kashmir (India). *J Depress Anxiety* .10.4172/2167-1044.
23. Shah PA, Nafee A. Clinical profile of headache and cranial neuralgias. *J Assoc Physicians India* 1999;47:1072-5.
24. Bera SC, Sudhir K, Sood KM, Goyal V. A comparative study of psychiatric comorbidity, quality of life and disability in

- patients with migraine and tension type headache. *Neurology India*. 2014;(62)5.
25. Singh AK, Shukla R, Trivedi JK, Singh D. Association of psychiatric co-morbidity and efficacy of treatment in chronic daily headache in Indian population. *J Neurosci Rural Pract*. 2013;4:132-9.
 26. Desai S, Pandya R. Study of psychiatric comorbidity in patients with headache using a short structured clinical interview in a rural neurology clinic in western India. *J Neurosci Rural Pract*. 2014;5:39-42.
 27. Breslau N, Davis GC. Migraine, Physical health and psychiatric disorder: a prospective epidemiologic study in young adults. *Journals of Psychiatric research* 1993;27:211-21.
 28. Sandrini G, Verri AP, Barbieri E, et al. Psychiatric co-morbidity in chronic daily headache. *Cephalgia* 15(supplement14) 1995;163-7.
 29. Gupta U, Aich TK, VermaAK. Psychiatric comorbidity in chronic migraine patients: A hospital based study. *J Psychiatrist's Association of Nepal* 2014;3(1).
 30. Heckman BD, Holroyd KA. Tension-type headache and psychiatric comorbidity. *Curr Pain Headache Rep* 2006; 10: 439-47.