

FREQUENCY OF ANXIETY AND DEPRESSION IN PATIENTS WITH MIGRAINE

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ABSTRACT

Objectives: To determine the frequency of anxiety and depression in patients presenting with migraine.

Material and Methods: This descriptive study was carried out in Psychiatry Outpatient Department of Khyber Teaching Hospital, Peshawar from 1st February to 31st July 2009. One hundred patients with migraine presenting to Psychiatry outpatient department of Khyber Teaching Hospital Peshawar were included in the study. They were diagnosed according to International Classification of Headache Disorders 2nd edition and then assessed for anxiety and depression using Hospital Anxiety and Depression Scale.

Results: Out of one hundred patients with migraine, 64 (64%) had comorbid anxiety or depression. Eighteen (18%) of them had anxiety only, 27 (27%) had depression only. Sixty-six (66%) were females, mean age was 30.23 years. Most of them were uneducated (57%) and unemployed (67%).

Conclusions: Anxiety and depression are more prevalent in patients presenting with migraine. All these illnesses are found more common in females. Married females are affected more than unmarried girls.

Key Words: Anxiety, Depression, Migraine.

INTRODUCTION

Headache is one of the commonest complaints of patients of all ages and both genders. General headaches have the life time prevalence of more than 95% to 97% and it is a common knowledge that almost every individual experiences headache in his life, which is mostly benign and subsides with self medication.¹ International classification of headache disorders in its 2nd edition has discussed a large number of Primary Headaches including migraine.² World Health Organization has ranked migraine among top 20 causes of disability.³

Anxiety and depression are also highly prevalent across the cultures.⁴ These disorders are more common in Pakistan, especially in females, because of different psychosocial factors.⁵ Depression alone is found to be one of the greatest causes of disease burden by W.H.O.⁶

While the two conditions have their own negative impact on the quality of patient's life,^{7,8} there are bi-directional etiological mechanisms between

migraine and depression, thus increasing the chances of their co-occurrence.⁹ When found together, they modify the clinical features of each other¹⁰, thus rendering their diagnoses difficult. Besides, it makes them more refractory to treatment, if not addressed simultaneously.¹¹ Psychiatric illnesses are commonly found comorbid with migraine^{12,13}, of which anxiety and depression are most common.¹⁴ While suicide is one of the serious outcomes of depression, it is also frequently found in patients suffering from Migraine, independent of depression.¹⁵ Comorbid anxiety and depression in migraine patients are usually overlooked, hence under-diagnosed and under treated leading to greater loss at work place, poor quality of life, and higher economic burden.¹⁶ It is therefore, important that the comorbid conditions in association with migraine be given due emphasis in terms of diagnosis and treatment so that overall sufferings of patients are reduced to the minimum.^{1, 11, 17} This study was thus planned to determine the frequency of anxiety and depression in patients presenting with migraine.

MATERIAL AND METHODS

One hundred patients with migraine presenting to Psychiatry Outpatient Department of Khyber Teaching Hospital Peshawar were included in the study. Patients were diagnosed according to International Classification of Headache Disorders 2nd edition. Initially patients were examined by a Physician and the

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possibility of secondary headache was excluded. Patients with comorbid severe psychotic disorder, major medical illness, visual or hearing problem and those who were already taking Anxiolytics or Anti-depressants were excluded from the study.

Patients assessed and the relevant information recorded on a proforma designed for this purpose comprising of socio-demographic variables like age, gender and marital status. Anxiety and depression were assessed by using Hospital Anxiety and Depression Scale (HADS). To avoid any bias of language or interpretation and to prevent the inter-rater reliability issues, scale was applied to all the patients by same person. Data collected through questionnaire was analyzed using the Statistical Package for Social Sciences SPSS (Version 13). Mean \pm S.D was calculated for Numerical/Quantitative variables like age etc. Frequency and Percentages were calculated for Qualitative/Categorical variables like anxiety, depression, migraine, gender, profession and marital status.

RESULTS

The mean age of the sample was 30.23+10.66 years. There were 66 (66%) females and 34 (34%) males. Fifty-seven (57%) were un-educated and 43 (43%) were educated. Sixty-three (63%) patients were married, 29 (29%) unmarried, 5 (5%) widows/widowers and 3 (3%) were divorced. Majority of the subjects were either un-employed (67%) or self-employed (19%) and a small proportion of the patients (14%) was in government job (Figure 1).

Out of 100 patients presenting with migraine, 64 (64%) had either comorbid anxiety or depression while 36 (36%) had neither of any. These 64 were sub classified into 18 (18%) having only anxiety, 27 (27%) only depression and 19 (19%) having both anxiety and depression. Thus, the anxiety was found in 37 (37%) and depression in 46 (46%) patients. Mean score for HADS- A (Anxiety) was 13.97 for males and 15.63 for females. Mean score for HADS-D (Depression) was 14.23 for males and 15.15 for females (Figure 2).

DISCUSSION

Numerous studies have shown the relationship between anxiety, depression and painful conditions. In presence of painful symptom / illness the chances of having another are significantly raised.¹⁸ Migraine is one such painful condition which is frequently associated with anxiety and depression. This relation is explained by various biological mechanisms including dysregulation of serotonin¹⁹ and shared genetics²⁰ as well as psychosocial factors e.g. constitution, personality²¹, medication overuse and obesity.²² Results of the present study show

significantly high frequency of anxiety and depression among patients suffering from migraine. Similar results are reported in different national and international studies conducted in various countries and cultures.²³⁻²⁵ Hamirani M et al (2008) reported in his study conducted at Karachi that in migraine patients 43% had anxiety, 31% had depression and 26% had both anxiety and depression.²⁶ Pompili M et al (2009) conducted study in Rome and reported that patients with migraine are 2.2 to 4.0 times more likely to have depression.²⁷ Ravi G et al (2007) reported similar results from a study in India.²⁸ The relatively higher frequency of depression in our study could be due to the fact that this study was conducted in psychiatry unit of a tertiary care hospital rather than a Headache Clinic. Our study shows that migraine is more common in females (66%), which is consistent with number of local and international studies. For example Hamirani reported 63.8% of females suffering from Migraine, while Shehbaz N et al found more than 70% female in his study). Married rather than unmarried women are affected more by comorbid anxiety and depression which could be due to their greater exposure to psychosocial stressors including domestic violence.²⁹

Results of present study show that most of the patients were uneducated (57%) and unemployed (67%). The mean age 30.23+10.66 years is also in agreement with other local studies.³⁰ This confirms general finding in the literature that people suffering from Migraine are younger and it afflicts the population during most productive years of their life.

CONCLUSION

As anxiety and depression are found in people with migraine, therefore General Practitioners and Physicians should be trained to diagnose these conditions with migraine.

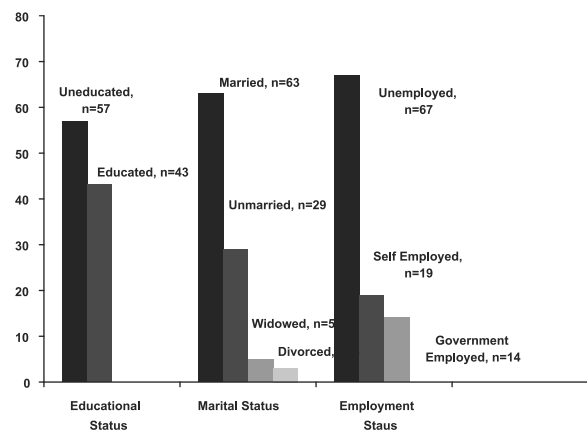


Fig. 1: Educational, Marital and Employment status of the sample (n=100)

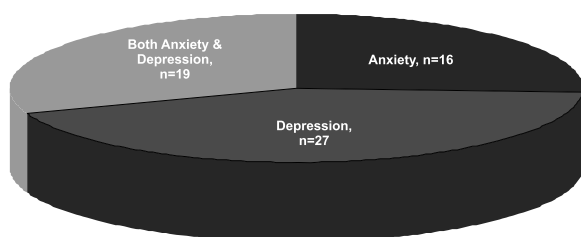


Fig. 2: Anxiety and depression in patients presenting with migraine (n=100)

REFERENCES

1. Khurshid F. Guidelines for the evaluation and management of headache in family practice. *Med Today* 2004; 2(3): 83-86.
2. Headache Classification Subcommittee of the International Headache Society. The International Classification of Headache Disorders, 2nd ed. *Cephalalgia* 2004; 24:1-232.
3. WHO (World Health Organization). The World Health Report 2001 – Mental health: New understanding, new hope. WHO, Geneva, 2001. [Accessed on 2010, March 07].
4. Hasin DS, Goodwin RD, Stinson FS, Grant BF. Epidemiology of major depressive disorder: results from the National Epidemiologic survey on Alcoholism and Related conditions. *Arch Gen Psychiatry* 2005; 62: 1097-06.
5. Niaz U, Hassan S. The psychosocial factors for depression in upper and upper-middle class urban women of Karachi. *J Pak Psych Soc* 2005; 2: 76-79.
6. Daly R. Depression Biggest Contributor to Global Disease Burden. *Psychiatr News* 2009; 144: 7-11.
7. Strine TW, Kroenke K, Dhingra S, Ballus LS, Gonzalez O, Berry JT, et al. The associations between depression, health-related quality of life, social support, life satisfaction, and disability in community-dwelling US adults. *J Nerv Ment Dis* 2009; 197: 61-64.
8. Canuet L, Ishii R, Fernandez-Concepcion O, Iwase M, Takeda M. Severity of depressive symptoms as predictor of impairment of quality of life in chronic migraine: comparison with episodic migraine. *Psychiatry Clin Neurosci* 2008; 62: 738-40.
9. Holroyd KA, Drew JB, Cottrell CK, Romanek KM, Heh V. Impaired functioning and quality of life in severe migraine: the role of catastrophizing and associated symptoms. *Cephalalgia* 2007; 27: 1156-65.
10. Colas R, Munoz P, Temprano R, Gomez C, Pascual J. Chronic daily headache with analgesic overuse, epidemiology & impact on quality of life. *Neurology* 2004; 62: 1338-42.
11. Shafqat S. Headache disorders in family practice. *Med Today* 2003; 1: 104-06.
12. Jette N, Patten S, Williams J, Becker W, Wiebe S. Comorbidity of migraine and psychiatric disorders—a national population-based study. *Headache* 2008; 48: 501-16.
13. Radat F, Swendsen J. Psychiatric comorbidity in migraine: a review *Cephalalgia* 2005; 25: 165-78.
14. Robbins MS, Lipton RB. The epidemiology of primary headache disorders. *Semin Neurol* 2010; 30: 107-19.
15. Wang SJ, Juang KD, Fuh JL, Lu SR. Psychiatric comorbidity and suicide risk in adolescents with chronic daily headache. *Neurology* 2007; 68: 1468-73.
16. Pesa J, Large MJ. The medical costs of migraine and comorbid anxiety and depression. *Headache* 2004; 44: 562-70.
17. Bigal ME, Lipton RB. The epidemiology, burden, and comorbidities of migraine. *Neurol Clin* 2009; 27: 321-34.
18. Hamelsky SW, Lipton RB. Psychiatric comorbidity of migraine. *Headache* 2006; 46: 1327-33.
19. Panconesi A. Serotonin and migraine: a reconsideration of the central theory. *J Headache Pain* 2008; 9: 267-76.
20. Stam AH, de Vries B, Janssens AC, Vanmalkot KR, Aulchenko YS, Henneman P, et al. Shared genetic factors in migraine and depression. Evidence from a genetic isolate. *Neurology* 2010; 74: 288-94.
21. Rezaei AA, Shamsaei F, Rezaei N. Personality characteristics in patients with migraine headaches. *Pak J Med Sci* 2006; 22: 480-82.
22. Fanciullacci M, De Cesaris F. Preventing chronicity of migraine. *J Headache Pain* 2005; 6: 331-33.
23. Tietjen GE, Brandes JL, Diqre KB, Baqqaley S, Martin V, Recober A, et al. High prevalence of somatic symptoms and depression in women with disabling chronic headache. *Neurology* 2007; 68: 134-40.
24. Shehbaz N, Ali S, Akhtar W, Aziz H. Migraine: comorbidity with depression. *Pak J Med Sci* 2007; 23: 95-99.
25. Mercante JP, Peres MF, Guendler V, Zukerman E, Bernik MA. Depression in chronic migraine: severity and clinical features. *Arq Neuropsiquiatr* 2005; 63: 217-20.
26. Hamirani M, Ahmed S, Luhano ML. Frequency of anxiety and depression in migraine- a study of 102 patients. *J Liaquat Uni Med Health Sci* 2008; 7: 194-98.
27. Pompili M, Di Cosimo D, Innamorati M, Lester D, Tatarelli R, Martelletti P. Psychiatric comorbidity in patients with chronic daily headache and migraine: a selective overview including personality traits and suicide risk. *J Headache Pain* 2009; 10: 283-90.
28. Ravi G, Manjeet B, Vishal C. Chronic daily headache: medication overuse and psychiatric comorbidity. *J Pak Psych Soc* 2007; 4: 19-24.
29. Ayub M, Irfan M, Nasr T, Lutufullah M, Kingdon D, Naeem F. Psychiatric comorbidity and domestic violence: a survey of married women in Lahore. *Soc Psychiatry Psychiatr Epidemiol* 2009; 44: 953-60.
30. Murtaza M, Kisat M, Daniel H, Sonawalla AB. Classification and Clinical Features of Headache Disorders in Pakistan: A Retrospective Review of Clinical Data. *PLoS ONE* 2009; 4(6): e5827.