

Assessment of prevalence of migraine among patients with depressive disorders

Dr.Azhar Mahmood Farooqui¹, Dr. Anurag Agrawal²

¹Assistant Professor, Department of Psychiatry, Integral Institute of Medical Sciences and Research, Lucknow, Uttar Pradesh, India; Email: azharmahmoodfarooqui@gmail.com

²Professor, Department of Psychiatry, Integral Institute of Medical Sciences and Research, Lucknow, Uttar Pradesh, India, Email: anurag.kgmu@gmail.com

Corresponding author:

Dr. Anurag Agrawal, Professor, Department of Psychiatry, Integral Institute of Medical Sciences and Research, Lucknow, Uttar Pradesh, India, Email: anurag.kgmu@gmail.com

ABSTRACT

Background: Migraine is one of the most prevalent disorders in the world. Mood disorders, such as depression and anxiety similarly, have a high prevalence rate across various geographic locations and populations. The present study was conducted to assess prevalence of migraine among patients with depressive disorders.

Materials & Methods: 110 patients diagnosed with depressive disorders of both genders were enrolled. All depressive disorders patients were seen for migraine over the diagnostic criteria for migraine from International Classification of Headache Disorders second edition (ICHD-2).

Results: Out of 110 patients, males were 45 and females were 65. 60 had no migraine, 22 had migraine with aura and 28 had migraine without aura. Among 20 patients with no migraines, 20 had moderate and 40 had severe depression, among 22 migraine with aura, 5 had moderate and 17 had severe depression and among 28 migraine without aura, 8 had moderate and 20 had severe depressive disorders. The difference was significant ($P < 0.05$).

Conclusion: There was high prevalence of migraine among patients with depressive disorders. Most of the patients had severe depressive disorders.

Key words: depressive disorders, migraine, headache.

INTRODUCTION

Migraine is one of the most prevalent disorders in the world.¹ Mood disorders, such as depression and anxiety similarly, have a high prevalence rate across various geographic locations and populations.² Migraine has a lifetime prevalence of 12–18%, which has been shown to be both age- and gender-dependent in community-based studies worldwide. The 1 year prevalence of migraine was reported to be between 12.4% and 12.6% in nationwide studies. Migraine is a chronic neurological headache disorder accompanied with some autonomic nervous symptoms such as nausea, vomiting, photophobia (sensitivity to light) and phonophobia (sensitivity to sound).³

Depressive disorder is a mood disorder, characterized by low mood, lack of interest and enjoyment, reduced self-esteem, slowness and reduced energy, disturbed sleep and appetite, leading to decreased social and occupational functioning.⁴ Life time prevalence of Depressive disorder is 18 to 22% and 1 year rate is 2-5% having greater ratio in females than males. The International Classification of Headache Disorders (ICHD) published by the International Headache Society (IHS) is used as the most reliable and acceptable diagnostic criteria for migraine.⁵ According to the IHS criteria, previous studies consistently showed a lifetime prevalence of migraine at 10–20%. Both migraine and depression are common complex diseases with complicated inheritance patterns, episodic manifestations and great burdens on

general populations. Comorbid depression and anxiety also are associated with poorer long-term headache outcomes, higher medical costs, healthcare utilization, and increased headache-related disability.⁶The present study was conducted to assess prevalence of migraine among patients with depressive disorders.

MATERIALS &METHODS

The present study comprised of 110 patients diagnosed with depressive disorders of both genders. Patients, who were substance users, had depressive disorder due to another medical condition or due to any drug patient is taking, patients of bipolar depression, post-schizophrenic depression or depressive disorder with psychotic features were excluded. All agreed to participate in the study with their written informed consent.

Demographic data such as name, age, gender etc. was recorded. All depressive disorders patients were seen for migraine over the diagnostic criteria for migraine from International Classification of Headache Disorders second edition (ICHD-2). Results of the study thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 110		
Gender	Males	Females
Number	45	65

Table I shows that out of 110 patients, males were 45 and females were 65.

Table II Occurrence of migraine among patients

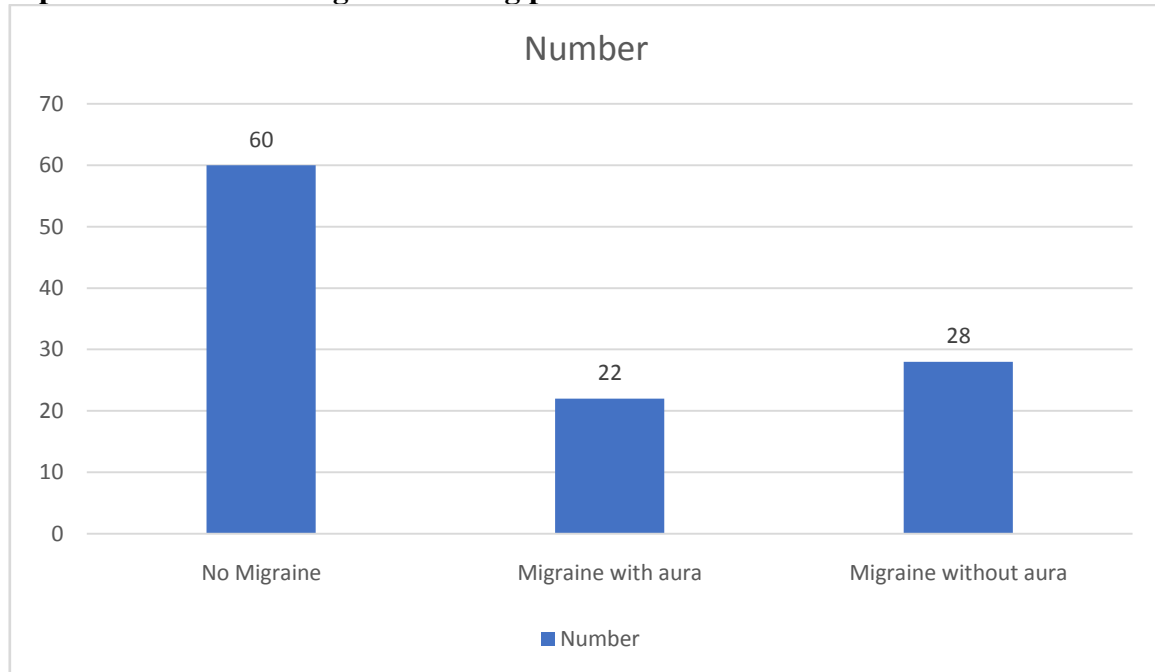
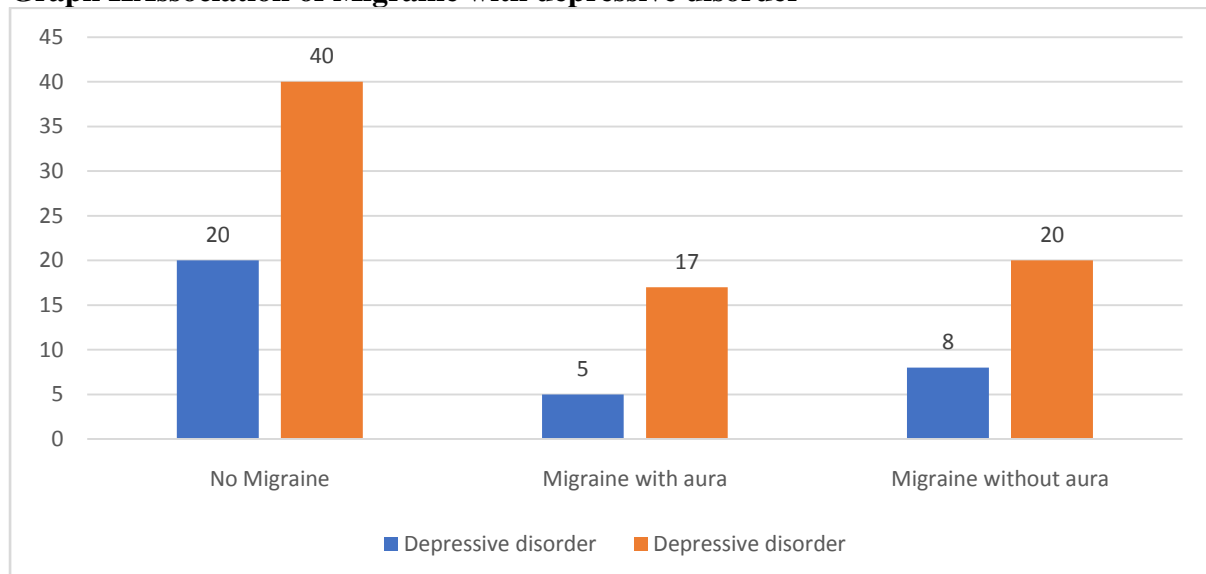
Migraine	Number	P value
No Migraine	60	0.05
Migraine with aura	22	
Migraine without aura	28	

Table II, graph I shows that 60 had no migraine, 22 had migraine with aura and 28 had migraine without aura. The difference was significant ($P < 0.05$).

Table III Association of Migraine with depressive disorder

Migraine	Depressive disorder		P value
	Moderate	Severe	
No Migraine	20	40	0.01
Migraine with aura	5	17	
Migraine without aura	8	20	

Table III, graph II shows that among 20 patients with no migraines, 20 had moderate and 40 had severe depression, among 22 migraine with aura, 5 had moderate and 17 had severe depression and among 28 migraine without aura, 8 had moderate and 20 had severe depressive disorders. The difference was significant ($P < 0.05$).

Graph I Occurrence of migraine among patients**Graph II Association of Migraine with depressive disorder**

DISCUSSION

Migraine-type headaches are also prevalent among university students and have a profound impact on school performance in university students.⁷ This impact is more evident among migrainous students than students with episodic tension-type headaches (ETTH), with a 62,7% decrease in capacity versus 24.4%.⁸ Moreover, students with migraine-type headaches missed more school than students with ETTH. These results reveal the importance of migraine headaches in university students. The relationship between mood disorders and migraine could be multi-factorial.⁹ For example, depressive symptoms and anxiety could emerge after recurrent headache episodes or by themselves they could be risk factors for migraine, and finally, they could be associated with some other (confounding) factor which drives the headache.¹⁰ This has led to the question whether this relationship is unidirectional or bidirectional and if so in which direction. A population-based study from the United States

demonstrated that chronic migraine sufferers were much more likely to have depression or anxiety.¹¹ The present study was conducted to assess prevalence of migraine among patients with depressive disorders.

In present study, out of 110 patients, males were 45 and females were 65. Jatet al¹² found out the prevalence of migraine among patients of depressive disorder. Total 272 patients were enrolled in the study. Depressive disorder was diagnosed as per ICD-10 criteria and Migraine headache as ICHD-2 criteria for diagnosis. A total of 272 patients with mean age of 31.85 ± 8.7 were enrolled. Out of 272 cases 64% were females; Out of total cases 86.4% were married. Migraine with aura was seen among 6.6% and migraine without aura was present among 26.1%. Migraine was linked more with females and married and of those having severe Depressive disorder. Migraine headache is common among depressed people, particularly females and having severe depression, so it ought to be remembered that while looking for Depressive disorder or headache the other condition must be remembered.

We observed that 60 had no migraine, 22 had migraine with aura and 28 had migraine without aura. Rammohanet al¹³ tested the hypothesis that mood disorders are comorbid with migraine with increased disability and to identify any clinical features in migraineurs which may be associated with mood disorders. Patients presenting with complaints of headache to the Neurology outpatient department were subjected to International Classification of Headache Disorder 3 beta criteria to satisfy a diagnosis of migraine and were assessed in detail as to headache characteristics. Mood disorders were assessed by Hospital Anxiety and Depression Scale and migraine-related disability was assessed by Migraine Disability Assessment Questionnaire. Patients with serious medical complaints, known previous psychiatric disease, other types of headaches and recent prophylactic drug intake were carefully excluded. A total of 133 patients were studied. The duration and frequency of migraine headaches were found to correlate with the presence of mood disorders and the migraine-related disability in patients with comorbid mood disorders was significantly higher. Factors such as total duration of migraine, aura, vomiting, phono, and photophobia were not found to be statistically correlated with mood disorders.

We observed that among 20 patients with no migraines, 20 had moderate and 40 had severe depression, among 22 migraine with aura, 5 had moderate and 17 had severe depression and among 28 migraine without aura, 8 had moderate and 20 had severe depressive disorders. Semizet al¹⁴ investigated the prevalence of migraine and associated psychiatric disorders among university students. A total of 1601 university students participated in this study and answered the questionnaires. The study was conducted in three stages: the self-questionnaire, the neurological evaluation, and the psychiatric evaluation. In the first stage, the subjects completed a questionnaire to assess migraine symptoms. In the second stage, the subjects who reported having migraines underwent a detailed neurological evaluation conducted by a neurologist to confirm the diagnosis. The self-reported migraine prevalence rate was 13.7%, and the actual prevalence rate of migraine among the university students was calculated to be 10.6% ($n = 169$). When the results obtained with the SCID-I were examined, a current SCID-I psychiatric diagnosis was found in 39 (23.1%) of the 169 subjects with migraines. A total of 73 (43.2%) students with migraines had a lifetime SCID-I psychiatric diagnosis.

CONCLUSION

Authors found that there was high prevalence of migraine among patients with depressive disorders. Most of the patients had severe depressive disorders.

REFERENCES

1. Bigal ME, Bigal JM, Betti M, Bordini CA, Speciali JG (2001) Evaluation of the impact of migraine and episodic tension-type headache on the quality of life and performance of a university student population. *Headache* 41:710–719.
2. Bicakci S, Bozdemir N, Over F, Saatci E, Sarica Y (2008) Prevalence of migraine diagnosis using ID Migraine among university students in southern Turkey. *J Headache Pain* 9:159–163.
3. Baskin SM, Smitherman TA (2009) Migraine and psychiatric disorders: comorbidities, mechanisms, and clinical applications. *NeurolSci* 30:61–65.
4. Pompili M, Serafini G, Di Cosimo D, Dominici G, Innamorati M, Lester D, Forte A, Girardi N, De Filippis S, Tatarelli R, Martelletti P (2010) Psychiatric comorbidity and suicide risk in patients with chronic migraine. *Neuropsychiatr Dis Treat* 6:81–91.
5. Ferri-de-Barros JE, Alencar MJ, Berchielli LF, Castelhana LC Jr (2011) Headache among medical and psychology students. *ArqNeuropsiquiatr* 69:502–508.
6. Amayo EO, Jowi JO, Njeru EK (2002) Headache associated disability in medical students at the Kenyatta National Hospital. *Nairobi East Afr Med J* 79:519–523.
7. Serafini G, Pompili M, Innamorati M, Gentile G, Borro M, Lamis DA, Lala N, Negro A, Simmaco M, Girardi P, Martelletti P (2012) Gene variants with suicidal risk in a sample of subjects with chronic migraine and affective temperamental dysregulation. *Eur Rev Med PharmacolSci* 16:1389–1398.
8. Headache Classification Committee of the International Headache Society (2004) The international classification of headache disorders, 2nd edition. *Cephalalgia* 24:1–159.
9. Lipton RB, Dodick D, Sadosky R, Kolodner K, Endicott J, Hettiarachchi J, Harrison W (2003) ID Migraine validation study. A self-administered screener for migraine in primary care: the ID migraine validation study. *Neurology* 61:375–382.
10. Siva A, Zarifoglu M, Ertas M, Saip S, Karli HN, Baykan B, Keskinaslan A, Senocak M (2008) Validity of the ID-migraine screener in the workplace. *Neurology* 70:1337–1345.
11. Bigal ME, Rapoport AM, Lipton RB, Tepper SJ, Sheftell FD (2003) Assessment of migraine disability using the migraine disability assessment (MIDAS) questionnaire: a comparison of chronic migraine with episodic migraine. *Headache* 43:336–342.
12. Jat MI, Afridi MI, Amar W, Lal C. Prevalence of Migraine among patients of Depressive Disorder. *Pakistan journal of medical sciences*. 2018 Jul;34(4):964.
13. Rammohan K, Mundayadan SM, Das S, Shaji CV. Migraine and mood disorders: prevalence, clinical correlations and disability. *Journal of neurosciences in rural practice*. 2019 Jan;10(01):28-33.
14. Semiz M, Şentürk İA, Balaban H, Yağız AK, Kavakçı Ö. Prevalence of migraine and comorbid psychiatric disorders among students of Cumhuriyet University. *The journal of headache and pain*. 2013 Dec;14(1):1-6.