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Original Research Article

Psychiatric comorbidity in patients with migraine

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ABSTRACT

Background: Migraine is a highly prevalent and disabling neurological disorder associated with a wide range of psychiatric comorbidities. The aim of the study was to study the psychiatric comorbidities in patients with migraine.
Methods: The study population comprised all the out patients who fulfilled the diagnostic criteria of migraine attending a tertiary care psychiatry hospital over a period of 6 months. A total of 90 cases of migraine seen over a period of 6 months were analysed to know the demographic characteristics, clinical pattern and psychiatric comorbidity.
Results: Maximum patients were between 21-40 years of age group (41.1%), females (83.3%), married (74.4%) and housewives (52.2%). 64.5% of study population was literate with a formal education above 10th standard. Migraine without aura was commonest sub-type (65.6%). Noise (75.6%) and sunlight (65.6%) was the most common precipitating factors. Anxiety disorders were the most common comorbid psychiatric disorders (40%), followed by major depressive disorder (24.4%). In 24.6% cases, no psychiatric comorbidity was present.
Conclusions: Migraine is comorbid with several psychiatric disorders, including anxiety and depressive disorders. When migraine and a comorbid psychiatric disorder are present, it is important to take both disorders into account in formulating a treatment plan.

Keywords: Migraine, Comorbidity, Anxiety disorders

INTRODUCTION

Migraine affects 12% of adults in the United States, making this condition a common concern for many patients and their doctors.[1] Often overlooked is the high prevalence of psychiatric comorbidities associated with migraine, such as depression, anxiety and post-traumatic stress disorder.[2-4] Migraine patients with psychiatric comorbidity have higher healthcare utilization than patients without psychiatric comorbidity.[5]

The aim of the present study was to study the demographic profile, clinical presentation and psychiatric comorbidity in patients suffering from migraine.

METHODS

Study design

The present study was a hospital based cross-sectional study.

Study participants and settings

A total of 90 patients were included in our study.

The study population consisted of all the patients of migraine who attended the department of psychiatry, Government Medical College, Srinagar over a period of 6

months from October 2021 to March 2022 who fulfilled the inclusion criteria of the study.

Inclusion criteria

Patients who gave consent, and subjects who fulfilled the diagnostic criteria of migraine as per 'international classification of headache disorders' - 3rd edition (ICHD-3) were included in the study.[6]

Exclusion criteria

Patients who did not give consent, and subjects having cognitive deficit were excluded.

Data collection and statistical analysis

All the study subjects were thoroughly evaluated on the basis of history and mental status examination, and the comorbid psychiatric diagnosis was confirmed by a consultant psychiatrist as per DSM-5 diagnostic criteria.[7]

A semi-structured proforma was created to record demographic details and clinical presentation.

The data was entered into excel sheet and tabulated. The data was analyzed using statistical package for the social sciences (SPSS) version 20.0.

Categorical variables were summarized as frequency and percentage. Continuous variables were summarized as mean and standard deviation.

Ethical consideration

The study was approved by the institutional ethical committee of Government Medical College, Srinagar.

RESULTS

Demographic profile

Majority of our study population and were in the age range of group of 21-40 years (41.1%), females (83.3%), married (74.4%) and from urban background (57.8%). The mean age of study population was 28.46±8.76 years. 64.5% of patients were literate with a formal education above 10th class. Most common occupational group was homemakers (52.2), followed by students (22.2%) (Table 1).

Clinical presentation

Migraine without aura was the most common type of migraine (65.6%). Majority of the patients would experience a frequency of 2-3 per week (37.8%) followed by 1-2 per week (26.7%). Most common precipitating factor was noise (75.6%), sunlight (65.6%) and sleep deprivation (25.6%).

More than one precipitating factors were noted in majority of the patients. Family history of migraine was present in 12.2% of patients (Table 2).

Table 1: Demographic profile.

Variables	N (%)
Age (years)	
<20	14 (15.6)
21-40	37 (41.1)
41-60	31 (34.4)
≥60	8 (8.9)
Gender	
Male	15 (16.7)
Female	75 (83.3)
Residence	
Rural	38 (42.2)
Urban	52 (57.8)
Marital status	
Married	67 (74.4)
Unmarried	20 (22.2)
Separated	3 (3.4)
Education	
Illiterate	21 (23.3)
Primary	11 (12.2)
10th pass	21 (23.3)
Higher secondary	18 (20.0)
Graduate and above	19 (21.2)
Occupation	
Homemaker	47 (52.2)
Student	20 (22.2)
Employed	11 (12.2)
Skilled worker	10 (11.2)
Others	2 (2.2)

Table 2: Clinical presentation.

Variables	N (%)
Type of migraine	
Migraine without aura	59 (65.6)
Migraine with aura	31 (34.4)
Frequency (per week)	
<1	11 (12.2)
1-2	24 (26.7)
2-3	34 (37.8)
>3	21 (23.3)
Precipitating factor	
Noise	68 (75.6)
Sunlight	59 (65.6)
Sleep deprivation	23 (25.6)
Fatigue	21 (23.3)
Monthly cycles	18 (20.0)
Oral contraceptives	3 (3.3)
Family history of migraine	
Present	11 (12.2)
Absent	79 (87.8)

Psychiatric comorbidity

Anxiety disorders were the most common comorbid psychiatric disorder (40%), followed by major depressive disorder (24.4%). No psychiatric comorbidity was present in 24.6% of patients (Table 3).

Table 3: Psychiatric comorbidity.

Psychiatric comorbidity	Number (%)
Major depressive disorder	22 (24.4)
Anxiety disorders	36 (40.0)
Obsessive compulsive disorder	4 (4.4)
Substance use disorder	4 (4.4)
Personality disorder	2 (2.2)
No psychiatric comorbidity	22 (24.6)

DISCUSSION

Migraine is reported to be more common in persons between the age of 20 and 45 years.[8] In the present study also, migraine was found to be more common among age group of 21-40 years (41.1%). Females were found to suffer more commonly than males (4:1) which is in consistent with other studies conducted across the world.[8,9] A study from Turkey shows that the female to male sex prevalence for migraine has consistently varied across the lifespan ranging from 3 or 4 to 1 in midlife and lowering to 2 to 1 or less at both ends of the age spectrum.[10]Although rates varies from different studies, the female preponderance in migraine is consistent throughout the world.[11]

Majority of patients were married (76%) and this may be because of the age group commonly affected by migraine. Most of the patients were educated with a formal education above 10th class (64.5%) which is in consistent with various studies conducted in India and across the world. According to a study done in the western country, migraine was more prevalent among people who have higher educational levels.[12] In another study, higher education was related to an increased risk of chronic headache.[13] The studies in India also found higher rate of migraine in homemaker which is in accordance to our study.[14]

Migraine without aura was the commonest subtype seen in 65.6% of study population. This is consistent with the reported findings that lifetime prevalence of migraine without aura is about 13% as compared to migraine with aura seen in less than 4% population.[15] The frequency of migraine commonly reported by patients was 2-3/week (37.8%) followed by 1-2/week (26.7%) which is in consistent with studies done in India.[14]

The precipitating factors of migraine were reported by majority of the patients. The most common precipitating factor was noise (75.6%), sunlight (65.6%) and sleep deprivation (25.6%). More than one precipitating factors was reported by majority of the patients. The other precipitating factors for migraine as reported in the literature e.g. aged cheeses, caffeine, chocolate, concentrated sugar, dairy products, fermented, pickled food, yeast products, meats with nitrites, monosodium glutamate, and saccharin could not be identified or reported by the patients in the present study.[15,16]

Migraine was comorbid with psychiatric disorders in 75.4% of patients. Anxiety disorders (40%) were the most common psychiatric disorder followed by major depressive disorder (24.4%). The other comorbid psychiatric disorders were obsessive compulsive disorder (4.4%), substance use disorder (4.4%) and personality disorder (2.2%). Anxiety disorders are two to five times more prevalent in patients with migraine than in the general population, up to two times more common in patients with migraine than in patients with depression.[2] Among the anxiety disorders, generalised anxiety disorder (GAD) and panic disorder (PD), are the most strongly linked with migraine.[17] Patients with GAD are at increased risk for migraine, and patients with migraine are at increased risk for GAD.[18] Patients with obsessive compulsive disorder (OCD) are at increased risk and higher frequency of migraine.[19] PD is associated with increased migraine frequency, increased disability, higher risk of chronification and higher risk of medication overuse.[20] Migraine and PD share features such as functional impairment, gastrointestinal (nausea), autonomic (dizziness), affective (fear) symptoms during attacks, and worry about further attacks between attacks.[20]

Limitations

Being a hospital-based study; it has its limitations of not being representative of the whole community.

CONCLUSION

Migraine is consistently associated with several psychiatric disorders, including anxiety and depressive disorders. It is important to maintain diagnostic vigilance for comorbid conditions. When migraine and a comorbid psychiatric disorder are present, it is important to take both disorders into account in formulating a treatment plan.

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REFERENCES

1. Lipton RB, Bigal ME, Diamond M, Freitag F, Reed ML, Stewart WF, et al. Migraine prevalence, disease burden, and the need for preventive therapy. Neurology. 2007;68:343-9.
2. Breslau N, Davis GC. Migraine, physical health and psychiatric disorder: a prospective epidemiologic study in young adults. J Psychiatr Res. 1993;27:211-21.

3. Jette N, Pattern S, Williams J, Becker W, Wiebe S. Comorbidity of migraine and psychiatric disorders—a national population-based study. Headache. 2008;48:501-16.
4. Lanteri-Minet M, Radat F, Chautard MH, Lucas C. Anxiety and depression associated with migraine: influence on migraine subjects' disability and quality of life, and acute migraine management. Pain. 2005;118:319-26.
5. Minen MT, Tanev K. Influence of psychiatric comorbidities in migraineurs in the emergency department. Gen Hosp Psychiatry. 2014;36:533-8.
6. International Headache Society. Classification and diagnostic criteria of headache disorders, cranial neuralgia, and facial pain. Cephalalgia.1988;8(7):1-96.
7. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
8. Waters WE, O'Connor PP. Prevalence of migraine. J Neurosurg Psychiatry. 1957;38:613-6.
9. Crisp AH, Kalucy RS, McGuinness B, Ralph PC, Harris G. Some clinical, social and psychological characteristics of migraine subjects in the general population. Postgrad Med J. 1977;53:691-7.
10. Benbir G, Karadeniz D, Göksan B. The characteristics and subtypes of headache in relation to age and gender in a rural community in Eastern Turkey. Agri. 2012;24:145-52.
11. Henry P, Auray JP, Gaudin AF, Dratigues JF, Duru G, Lanteri-Minet M, et al. Prevalence and clinical characteristics of migraine in France. Neurology.1999;53:537-54.
12. Hagen K, Vatten L, Stovner L, Zwart JA, Krokstad S, Bovim G. Low socio-economic status is associated with increased risk of frequent headache: a prospective study of 22718 adults in Norway. Cephalalgia. 2002;22:672-9.
13. Le H, Tfelt-Hansen P, Skytthe A, Kyvik KO, Olesen J. Association between migraine, lifestyle and socioeconomic factors: a population-based cross-sectional study. J Headache Pain. 2011;12:157-72.
14. Bhatia MS, Gupta R. Migraine: Clinical Pattern and psychiatric comorbidity. Ind Psychiatry J. 2012;21:18-21.
15. Merikangas KR, Risch NJ, Merikangas JR, Welssman MM, Kidd KK. Migraine and depression; association and familial transmission. J Psychiatry Res. 1988;22:119-29.
16. Blau JN. Premonitory symptoms of migraine. In: Olesen J, Edvinson L, editors. Basic mechanisms of Headache. New York: Elsevier. 1988;345-51.
17. Baskin SM, Lipchik GL, Smitherman TA. Mood and anxiety disorders in chronic headache. Headache. 2006;46(3):76-87.
18. McWilliams LA, Goodwin RD, Cox BJ. Depression and anxiety associated with three pain conditions: results from a nationally representative sample. Pain. 2004;111:77-83.
19. Goulart AC, Santos IS, Brunoni AR, Nunes MA, Passos VM, Griep RH, et al. Migraine headaches and mood/anxiety disorders in the ELSA Brazil. Headache. 2014;54:1310-9.
20. Smitherman TA, Kolivas ED, Bailey JR. Panic disorder and migraine: comorbidity, mechanisms, and clinical implications. Headache. 2013;53:23-45.

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