



Research Article

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Prevalence of mental health problems in migraine patients: A hospital based study

Prakash Kori ¹, Santosh Ramdurg ²

¹ Assistant professor, Department of Neurology, Karnataka Institute of medical sciences, Hubballi

² Associate professor, Dept of Psychiatry Shri B M Patil Medical College, Hospital and research Centre Bangaramma Sajjan campus, solapur road Vijayapur, Karnataka, India

Abstract

Aim and Objectives: To study the prevalence of psychiatric illness in patients with migraine. **Methodology:** The study was done in outpatient dept (OPD) in the Department of neurology. Age group was between 15 years to 65 years. Data collected over period of six months. Diagnosis of migraine made by consultant neurologist. Semi-structured perform was designed to collect data on Demographic and clinical profiles of patients. ICD 10 DCR criteria were used to diagnose psychiatric disorder. Appropriate statistical tools were used to analyze the available data. **Results:** We recruited 100 cases of migraine among them 38 patients were male and 62 were female. In seventy five cases we found co-morbid psychiatric illness. Commonest illness was Anxiety disorder (38%) followed by depressive disorders (26%). **Conclusion:** Migraine is having higher prevalence of psychiatric (mood and anxiety) disorder. To treat effectively migraine we need to treat underlying psychiatric disorder.

Keywords: Psychiatric illness, Migraine, Mental health problem.

INTRODUCTION

Migraine is an extremely common disorder, characterized by the recurrence of painful and non-painful episodic phenomenon. Nosographically, it is a chronic illness interspersed with acute signs and symptoms

In USA 12% of the adult general population suffer with the migraine [1]. Migraine headache is characterized by atleast two the following signs, it will be unilateral in location, pulsating in nature /quality, pain will be of moderate to severe in intensity and aggravated by triggers. During headache at least one of the following symptoms must be present: Nausea and/or vomiting, Photophobia and phonophobia.

The psychological manifestations of migraine, including depression, memory impairment, drowsiness, fearfulness and ill humor were described more than a century ago^[2] Migraine is a common neurological disorder which has psychiatric co-morbidities [2-5]. In further studies following symptoms have been reported. General distress, depression, irritability, anxiety, fear of impending doom, fatigue, lethargy, appetite and sleep have been reported [6-9].

Patient with migraine having psychiatric illness have higher healthcare utilisation tendencies than without psychiatric illness.^[10] If this issue is being not properly addressed than migraine can become chronic. It can also lead to disability, impaired quality of life and negative treatment outcomes

There are very limited number of studies reported on migraine headache from India till date. That's why we intended to go for the present study.

Aim of the study: To study the socio-demographic data, character of migraine and co-morbid psychiatric illness in migraine patients.

METHODOLOGY

This study was done in OPD in the Department of neurology and Psychiatry. This study was cross sectional study. Method of recruitment of sample was by sample of convenience. We recruited the patients having diagnosis of "Primary Migraine Headache" aged between 15 to 65 years and were willing to give informed consent for the study. Following study tools were used for assessment. Semi structured socio-demographic profile and clinical data on migraine. Socio-demographic data included were age, sex, educational status, type of family, kind of job/ occupation etc. Clinical parameters were presenting complain, mode of onset of migraine, course of migraine, duration of illness, frequency of migraine, presence of aura, location, intensity, quality, type and radiation of migraine and also aggravating and relieving factors etc. To diagnose headache we used International Headache Society guidelines for

*Corresponding author:

Dr. Santosh Ramdurg

Associate professor, Dept of Psychiatry Shri B M Patil Medical College, Hospital and research Centre Bangaramma Sajjan campus, solapur road Vijayapur, Karnataka, India
Email:
santoshramdurg@gmail.com

classification and diagnosis of headache (ICHD2)^[11] 2004. To diagnose psychiatric illness we used International classification of mental and behavior disorder 10th Edition (ICD-10) [12]

Assessment: All the new cases who presented to neurology OPD with headache as a primary complaint were taken up. Over a period of 6 months we recruited totally 812 patients. Amongst them 234 of them were registered for the first time. In the beginning all the new cases were assessed by consultant neurologist. After initially assessment we excluded those patient who did not fulfill for the criteria. In 256 patient headaches was of tension type. 75 patients were not willing to give consent. In others they had comorbid hypertension and other major medical disorder. A total of 100 cases were finally taken up for the study. All these 100 cases fulfilled diagnosis of migraine headache according to IHS criteria 2004 (ICHD-II). Consultant psychiatrist assessed them for co-morbid psychiatric illness and diagnosis made according to ICD 10 criteria. Each ICD 10 interview took approximately 20 minutes to 30 minutes.

Statistical Analysis: The parameters were summarized descriptively. For continuous variables, we used mean± standard deviation (SD). For categorical data, we used number and percentage. Chi-square (χ^2) test is used for association between two categorical variables

RESULTS

we recruited total 100 patients (62 female; 38 male) of migraine headache for the present study. Socio-demographic characters are presented in table no 1. Mean age of our patients were 35.4 years with 72% of them belonged to age group of 15-35 years. Seventy seven subjects were educated and fifty six patients were from rural background.

Table 2: Clinical Profile of patients with Migraine

Duration (months)	25±18
Frequency of migraine	
Multiple in weak	67%
Daily	33%
Intensity	
Mild	22%
Moderate	61%
Severe	12%
Incapacitating	5%
Location	
Frontal	58%
Central	8%
Temporal	34%
Precipitant	
Present	71%
Absent	29%
Diagnosis	
Migraine without aura	83%
Migraine with aura	17%
Co-morbidity psychiatric illness	
Absent	25%
Present	75%
• Anxiety	• 38%
• Depression	• 26%
• Panic	• 8%
• Others	• 3%

The intensity of migraine headache, milder headache was present in 22% of cases, moderate in 61%, severe in 12% and incapacitating in 5%

Table 1 : Demographic Profile of Patients

Age (in years)	35.4±4.6
Age in groups	
15-25	32%
26-35	40%
36-45	28%
Sex	
Male	38%
Female	62%
Education	
Illiterate	23%
Literate	77%
Marital status	
Unmarried	44%
Married	56%
Residence	
Rural	56%
Urban	44%
Religion	
Hindu	76%
Muslim	8%
Christian	6%
Others (sikh, jain)	10%

of patients. In 71% of cases distinct precipitating/aggravating factors were present for migraine. Migraine episodes were multiple per week

in 67% Patients. Migraine with aura present in 17% cases and migraine without aura present in 82% of our migraine headache patients. Psychiatric co-morbidity was present in 75% of patients. Anxiety disorder was most common psychiatric co-morbid illness (38%), followed by Depressive disorder (26%), Panic disorder (8%) and others 3%.

DISCUSSION

.In study by Mitsikostas and Thomas 70% of their migraine sufferers were female and rest of the 30% patients were male [13]. Similar results were also reported by Jung et al and other studies too [14, 15]. In our majority of them were female which is matching with other studies. Mean age of our patient population was 35.5 years which is in similar with Mercante et al study. They reported mean age was 36.3 years in their patient population. Seilberstein et al., (1996) reported migraine with aura was present 21.5% their headache cases and migraine without aura was present in 78.5% of their migraine cases while in our study it was 17% and 83% respectively. The study by Mitsikosta et al. reported Migraine with aura was in 8% and Migraine without aura was in 83%, of their chronic daily headache cases [11]. Similar studies are also reported by Merikangas et al 1988 study.

Various factors are known to precipitate, trigger and/or aggravate headaches. Commonest are pineapple, lemon juice, lack of sleep, intake of particular foods like curd, loud noise, exposure to bright lights, , bending of body, following physical exertion etc. Similar kind of studies were reported in literature. Mongini et al., in (1997) studied 20 patients of chronic daily headache and reported migraine get aggravated during weather changes in 32% of the cases and in 21% cases it was while performing intellectual activity. , in another 14% of cases it was due to fatigue, in 45% patients stress, in 30% of cases head movement in patients of their study population.

We found 70.8% of our chronic migraine headache patients had diagnosable mental illness. Similar study reports were shown by various other authors in the past.

In our study anxiety disorder most common illness (38%), followed by Depressive disorder (26%) and Panic disorder (8%). Study by Breslau & Davis and Sandriny et al also reported similar kind of results [5]. In 1993, Breslau et al., reported that increased prevalence of anxiety disorders, substance abuse disorders, nicotine dependence and suicide attempt [5].

Anxiety disorders were two to five times more common in migraine patients compared general population and two times more common than in patients with depression. Anxiety was more common in chronic migraine than episodic migraine. Depression is comorbid with anxiety disorders in migraine patients. Among the anxiety disorders, obsessive compulsive disorder (OCD), generalized anxiety disorder (GAD) and panic disorder (PD) are the most strongly linked with migraine [12].

Depression was second most common psychiatric illness in migraine patients. Three different kind of studies were found and they were having depression 2.5 times more compared with non-migraineurs. A meta-analysis done on data from 12 studies on migraine and depression has shown that the incidence of depression keeps varying from 8.6% to 47.9%.

The relation between migraine and major depressive disorder is much stronger for patients with Chronic migraine and migraine with aura. Also the relationship between patients with migraine and depression appears to be having bidirection. In Study by 1994, Breslau et al., has shown that risk of major depression in prior migraine were 3.2. The risk for migraine associated with prior depression were 3.1. this suggest that, with each disorder increasing the risk of the other disorder. So we can interpret that a shared causation could exist between migraine and depression.

It is important to treat depression in order to prevent chronification of migraine. Patients having both migraine and depression are more likely to be resistant routine (refractory) to treatments. They also suffer from overuse of medication.

Most of the migraine patient does respond to tricyclic antidepressant. This suggest that a shared causative mechanism for depression and migraine. This could be due to imbalance in serotonergic, hormonal function and sensitization of the sensory and emotional neural networks.

CONCLUSION

Migraine is having higher prevalence of psychiatric (mood and anxiety) disorder. To treat effectively migraine we need to treat underlying psychiatric disorder.

Conflicts of interest: Nil

Authors' Contribution: all the authors have contributed for concept formation, data collection, data analysis and script writing

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