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OBSESSIVE COMPULSIVE SYMPTOMS IN MIGRAINE WITH AURA AND WITHOUT AURA - A COMPARATIVE STUDY

Psychiatry

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ABSTRACT

Psychiatric symptoms, such as anxiety, depression and obsessive compulsive symptoms are seen more in migraine patients than general population with some research suggesting higher comorbidity in migraine with aura than migraine without aura. Establishing of these symptoms is important in terms of successful management. The aim of the study was to compare the levels of obsessive-compulsive symptoms between migraine with aura and migraine without aura and to detect the relationship of the levels of these disorders with duration of disease and frequency of the attacks. The sample of 30 migraine patients was included in the study out of whom 19 patients were of migraine without aura and 11 were migraine with aura. Migraine diagnosis was made by psychiatrist trained in treating headaches and OC symptoms were evaluated by means of the Yale-Brown Obsessive Compulsive Screening Scale. All 30 patients were diagnosed as per new international classification of headache disorders (ICHD-III) criteria and were selected as per inclusion and exclusion criteria and after well informed written consent. It was found that among the patients of migraine with aura, most of them had sensory type of aura. Most of the patients out of the total sample were also found to contain obsessive and compulsive symptoms out of which contamination obsession and cleaning compulsion were most common.

KEYWORDS

migraine with aura, migraine without aura, obsessive compulsive disorder

Introduction

Migraine is an extremely common disorder, characterized by the recurrence of painful and non-painful episodic phenomena and a variety of neurological manifestations. Nosographically, it is thus a chronic illness (migraine seen as a "disease") interspersed with acute signs and symptoms (migraine seen as an "attack"). The mechanisms underlying migraine appear to be increasingly complicated, and the term complex disease is used to define the nature of the illness and to describe the whole breadth of the clinical and subclinical aspects that it encompasses (Wessman et al., 2007; Ven et al., 2007). The wide heterogeneity of migraine accounts for the observation that the large population of migraine sufferers includes patients living an almost normal life and patients complaining of serious disability, i.e. facing social, affective and occupational limitations (Stewart et al., 1994).

Since the first introduction of the IHS criteria (IHS, 1998), several studies of community-drawn samples have examined migraine psychiatric comorbidity. All cross-sectional investigations of psychiatric disorder prevalence in 'migraine' compared with 'non-migraine' samples found an increased risk of anxiety disorders, particularly panic disorder (PD) and phobias. As for other anxiety syndromes, one study (Breslau et al., 1991) found an association between migraine and obsessive–compulsive disorder (OCD) as well as generalized anxiety disorder (GAD), but these associations were not replicated in subsequent investigations (Swartz et al., 2000; Jette et al., 2007; Ratcliffe et al., 2008). All these investigations were of high methodological quality (including rigorous sampling criteria in a community setting, use of structured interviews and application of DSM diagnostic criteria). The reasons for this discrepancy therefore remain uncertain.

In patients with migraine with aura, an association was early reported with suicide attempts, even after adjustment of data for major depression (Breslau et al., 1991). This observation is in line with later studies by the same group claiming that migraine with aura is characterized by psychiatric comorbidity more frequently than migraine without aura (Breslau et al., 2000). Interestingly, similar findings were recently obtained in a sample of adolescents aged 13–15 years. A higher frequency of suicidal ideation was observed in younger adolescents with migraine with aura or with high frequency of attacks, these associations being independent of depressive symptoms (Wang et al., 2009).

Interestingly, a recent study investigated the presence of migraine with and without aura, probable migraine and no migraine, according to the IHS criteria, in a large sample of concordantly depressed sibling pairs (Ball et al., 2009). The findings supported the hypothesis that the two forms of migraine are different, migraine with aura representing the extreme end of a continuum of migraine familial liability, even in a defined psychiatric population (i.e. depressed patients). Accordingly, in a case–control study, it was recently observed that not only there is a general relationship between recurrent headache and depression, but also a specific association between depression and migraine with aura (Samaan et al., 2009).

Though not easily comparable due to differences in methodology to reach diagnosis (i.e. psychiatric interviews and scales), population based studies generally indicate an increased risk of affective and anxiety disorders in patients with migraine, compared to non-migrainous subjects. Recently, in a cross-sectional study panic disorder was found to prevail in migraine compared with tension-type headache or migraine plus tension-type headache, and the association was stronger when migraine was compared to pure tension-type headache; similarly, obsessive–complulsive disorder was more closely associated with migraine than to tension-type headache (Beghi et al., 2010). By contrast, there is definitely no comorbidity with substance abuse/dependence. With respect to migraine subtypes, comorbidity (e.g. suicide attempts, bipolar disorder, OCD etc.) mainly involves migraine with aura rather than the form without aura.

Therefore the present study focuses on specifically Obsessive Compulsive Symptoms in Migraine with aura and without aura.

Objectives

- To determine the difference between the severity of OCD among the patients suffering from Migraine with aura and without aura.
- To assess the impact of various demographic variables on the severity of OCD among the patients suffering from Migraine with aura and without aura.

Hypotheses

- There would be a significant difference between between the severity of OCD among the patients suffering from Migraine with aura and without aura.
- There would be a significant impact of various demographic variables on the severity of OCD among the patients suffering from Migraine with aura and without aura.

Variables

- Patients suffering from Migraine with aura
- Patients suffering from Migraine without aura
- Yale-Brown Obsessive Compulsive Scale (Y-BOCS)

Sample

The total sample size is of 30 patients, selected from Department of Psychiatry, Dr. S.N. Medical College and Hospital, Jodhpur, Rajasthan on the availability basis. 30 patients were diagnosed as per new international classification of headache disorders (ICHD-III) criteria and were selected as per inclusion and exclusion criteria and after well informed written consent. The categorical division was as follows:

- Migraine with aura- 19
- Migraine without aura - 11

Tools Employed

1. Yale-Brown Obsessive Compulsive Scale (Y-BOCS)

Procedure

After getting the patient diagnosed with migraine with or without aura, the patients were seated comfortably and a good rapport was established with him/her. Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was administered on the patients to assess the severity of obsession and compulsion among the selected patients.

Scoring was done according to the manual of the test. After the scoring was done, frequency percentage and chi-square were calculated in order to obtain the results of the difference in the severity of OCD symptoms. Interpretation was done.

Results and Discussions

Table 1 – Comparison of Demographic Characteristics between Migraine without Aura and Migraine with Aura.

Age (in years)	Total	Migraine without Aura (n=19)	Migraine with Aura (n=11)
15 -25 years	9	7 (36.84%)	2 (18.18%)
25-35 years	15	10 (52.63%)	5 (45.45%)
35-45 years	4	1 (5.26%)	3 (27.27%)
>45 years	2	1 (5.26%)	01 (9.09%)
Gender			
Male	1	01 (5.26%)	00
Female	29	18 (94.73%)	11 (100%)
Total	30	19	11

Table 2 – Comparison of Clinical Characteristics between Migraine without Aura and Migraine with Aura.

Duration of illness (in years)	Total	Migraine without Aura	Migraine with Aura
< 3 months	2	1 (5.26%)	1 (9.09%)
3 to 1 years	8	6 (31.57%)	2 (18.18%)
>1 years	20	12 (63.15%)	8 (72.72%)
Severity			
Mild to Moderate	0	00	00
Moderate to Severe	12	09 (47.36%)	03 (15.78%)
Severe to Incapacitating	18	10 (52.63%)	08 (72.72%)
Frequency			
Almost Daily	17	09 (47.36%)	08 (72.72%)
Almost Weekly	11	08 (42.10%)	03 (15.78%)
Almost Monthly	2	02 (10.52%)	00
Aura			
None	19	19 (100%)	00
Physical	4	00	04 (36.36%)
Sensory	7	00	07 (63.63%)

Table 3 – Comparison of Obsessive and Compulsive symptoms between Migraine without aura and Migraine with aura.

Obsessions	Total	Migraine without Aura	Migraine with Aura
Present	22	13 (68.42%)	09 (81.81%)
Absent	8	06 (31.57%)	02 (18.18%)
Compulsions			
Present	19	12 (63.15%)	07 (63.63%)
Absent	11	07 (36.84%)	04 (36.36%)
Types of Obsessions			
None	8	06	02
Aggressive	6	03	03
Contamination	15	09	06
Exactness	12	08	04
Religious	7	03	04
Somatic	1	00	01
Types of Compulsions			
None	11	07	04
Cleaning	11	06	05
Religious	4	02	02
Arranging	7	04	03
Checking	5	02	03
Hair Pulling	1	00	01

There was an increased incidence of co-morbidity with anxiety and mood disorders (including bipolar disorder, panic disorder, and generalized anxiety disorder) in persons with migraine, with and without aura symptoms. Other researchers have found similar results (Swartz, 2000). However, other research utilizing different methodology has found no relationship between OCD symptoms and migraine headache (Arena, 1986).

A total of 30 migraine patients were included in the study out of whom 19 patients were of migraine without aura and 11 were migraine with aura. In table 1, the cmparison was made between the patients of migraine with aura and migraine without aura on the basis of their demographic characterstics. It may be cleasrly seen from the table that most of the patients suffering from migraine with aura(45.4%) and migraine without aura (52.6%) were lying between the age group of 25-20 years. The age groups which had the least number of patients were 35-45 years and more than 45 years. When the gender of the patients was taken into account, it was found that only one patientwas male who was in migraine with aura category. Rest all the patients were females (29) out of which 18 (94.7%) were having migraine with aura and all 11 had migraine without aura.

Table 2 compares the clinical characteristics of the migraine with aura and migraine without aura. Most of the patients (20) were found to have more than one year of duration of illness. Out of these 20 patients, 12(63.1%) lied in the category of migraine without aura and 8 (72.7%) had migraine with aura. 8 patients had the duration of illness between 3 months to 1 year and 2 patients were found to be suffering for less than 3 months. The severity of the migraine was found to be severe to incapacitating among 18 patients (10(52.6%) migraine without aura and 8 (72.7%) migraine with aura). Moderate to severe intensity of migraine was found in 12 patients out of which 9 had migraine without aura (47.3%) and 3 had migraine with aura (15.7%).

When the frequency of migraine was assessed among these patients, it was found that 17 patients had migraine attacks almost daily which included 9 (47.3%) patients suffering from migraine without aura and 8 (72.7%) patients of migraine with aura. Out of the 30 patients of migraine included in the study, 11 had aura, out of whom 7 (63.6%) had sensory aura and 4 (36.3%) had physical aura. 42.1% of the patients having migraine without aura and 15.7% of the patients having migraine with aura were seem to have weekly episodes of migraine. Only two patients having migraine without aura had monthly episodes. Table 3 of the present study was associated with the comparison of Obsessive and Compulsive symptoms between the patients of Migraine without aura and Migraine with aura. Out of the total sample of 30, in 22 patients the symptoms of obsessions were present whereas, 19 patients out of 30 were found to have compulsion symptoms.

Furthermore, it was seen that among the patients having symptoms of obsessions, the types of obsessions which were most common were

thoughts of contamination and exactness where 15 patients (9 migraine without aura and 6 migraine with aura) and 12 patients (8 migraine without aura and 4 migraine with aura) respectively. The second common types of obsessions were of being aggressive (6 patients) and religious (7 patients). Only one patient was found to have somatic obsessions.

Moreover, the types of dominant compulsions among the patients was assessed, where it was found that 11 patients had compulsion of cleaning (06 migraine without aura and 05 migraine with aura), 7 had compulsive arranging habit, 5 had repeatedly checking compulsion, 4 patients were examined to have religious type of compulsions and only one patient had the compulsion of hair pulling.

Hence, this suggests that there are greater chances of comorbidity of OCD symptoms among the patients suffering from migraine with and without aura.

Conclusion

Therefore, it may be concluded that most of the patients of the both the categories were less than 35 yrs of age. All the migraine with aura patients were females whereas only one patient of migraine without aura, out of 19, was male. Most of them had the duration of illness of more than one year during which they suffered from severe to incapacitating levels of pain which occurred almost daily. Among the patients of migraine with aura, most of them had sensory type of aura. Most of the patients out of the total sample were also found to contain obsessive and compulsive symptoms out which contamination obsession and cleaning compulsion were most common.

Limitations

1. The sample size may be large in order to generalize the results.
2. More variables may be included in order to enhance the significance of the research.
3. More in statistical tools may be added to go into further details of the research.

Implications

1. This study gives an idea of the level of comorbidity of OCD symptoms in migraine.
2. This research opens new vistas for further research.
3. More research may be carried out further in this direction according to this study.
4. Further designs of reserch may be formalized on the basis of the present research conducted.

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