

STUDY OF PREVALENCE & IMPACT OF DEPRESSION IN MIGRAINE

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ABSTRACT

Introduction: *Migraine is the most common disabling primary headache. Depression is the leading cause of disability world wide. Depression is commonly seen as comorbid condition with migraine. The present study was done to look for prevalence of depression in migraineurs and also to look for impact on quality of life in those with comorbid migraine.*

Materials and methods: *A case control study was done on 127 individuals with migraine and 30 age and sex matched healthy individuals. The International Headache Society's International Classification of Headache Disorders, 3rd Edition, (ICHD-III) was followed to diagnose Migraine with or without aura. Head ache impact test was used to assess severity of headache. Migraine disability assessment scale (MIDAS) was used to assess migraine related disability. Migraine disability assessment scale (MIDAS) was used to assess severity of migraine. Mini-International Neuropsychiatric Interview (M.I.N.I.) PLUS questionnaire was used to screen for the presence of depression. Hamilton Depression rating scale was used for assessing severity of depression. WHO Quality of Life -BREF questionnaire used to assess quality of life.*

Results: *Depression was present in 31(24.4%) with migraine while none in control group had depression. In females depression was found in 28.08% while in males depression was found in 15.78%. Quality of life was significantly affected in those with depression.*

Conclusion: *Depression is a common comorbid condition in migraine. Depression is more common in females with migraine. The longer acute headaches and higher migraine related disability are contributing factors for development of comorbid depression. Quality of life is also significantly affected in those with comorbid depression*

Key words: *Migraine, Depression, Quality of life.*

INTRODUCTION

Migraine is an extremely common disorder for which individuals seek medical help. According to WHO global burden of disease, depressive disorder is the most common cause of disability worldwide¹.

The presence of comorbid depression results in greater utilisation of health resources than those without comorbid depression².

Health related quality of life is also generally lower in those with migraine and comorbid depression³

AIMS AND OBJECTIVES

The present study was undertaken to look for the prevalence of comorbid depression in migraine and also to assess their quality of life. The study also looked in to factors contributing for the occurrence of comorbid depression.

MATERIALS AND METHODS

This study was done in Department of Neurology, JSS Hospital, Mysore, Karnataka. 127 consecutive individuals diagnosed to have migraine and 30 age and sex matched healthy individuals were studied. The ICHD-III criteria was used to diagnose Migraine with or without aura⁴. Head ache impact test was used to assess severity of headache⁵. Migraine disability assessment scale (MIDAS) was used to assess migraine related disability⁶. Mini-International Neuropsychiatric Interview (M.I.N.I.) PLUS questionnaire was used to screen for the presence of depression⁷. Hamilton Depression rating scale was used for assessing severity of depression⁸. WHO Quality of Life -BREF questionnaire used to assess quality of life⁹.

RESULTS

127 individuals with migraine were studied of which 89 were females and 38 were males. 60 age matched controls of which 30 were females and 30 males. Maximum participants were housewives.

- Table 1: Mean age of cases and controls

	Female (n=89)	Female (n=30)	p value	Male (n=38)	Male (n=30)	p value
Age(yrs)	32.58±7.85	32.56±8.62	0.99	32.9±7.85	33.9±7.65	0.6

Table 2: Age and headache characteristics of the migraineurs

	Mean	Std. Deviation
Age (Yrs)	32.33	7.83
Migraine duration(Yrs)	3.51	3.23
Duration of acute headache (hrs.)	19.22	18.61
Frequency/month	5.91	3.49
Migraine days/month	6.94	4.94

The mean age of the migraineurs was 32.33 ± 7.83 yrs and had migraine since 3.51 ± 3.23 yrs with a frequency of 5.91 ± 3.49 episodes per month.

The mean duration of acute headaches is 19.22 ± 18.61 hours.

Table 3: Age of migraineurs with and without comorbid depression

	Migraine with depression(n=31)	Migraine without depression(n= 96)	
	Mean \pm std.dev	Mean \pm std.dev	P value
Age (yrs)	34.77 ± 6.71	31.54 ± 8.03	

Table 4: Headache characteristics and QOL in those with and without depression.

	Depression Present(n=31) 24.4%	Depression Absent(n=96) 75.6%	
	Mean\pm Std. dev.	Mean\pm Std. dev.	p value
Head ache duration(yrs)	3.43 ± 3.32	3.16 ± 3.56	0.713
Duration of acute headache (hrs.)	25.16 ± 19.3	17.3 ± 18.07	0.041
Frequency/month	6 ± 3.27	5.88 ± 3.57	0.863

Migraine days/month	7.68±5.53	6.71±4.74	0.345
HIT	69.58±5.72	66.11±7.02	0.014
MIDAS	28.06±10.15	21.71±11.4	0.007
WHO-QOL			
Physical health	43.23±12.1	52.83±8.38	<0.0001
Psychological	54.32±4.55	55.31±6.9	0.457
Social relationships	55.35±10.4	61.61±10.79	0.005
Environment	68.06±8.17	73.45±5.77	<0.0001
Total score	52.63±4.96	60.97±7.12	<0.0001

Depression was seen in 31(24.4%), in contrast to those without depression the mean age with those with depression was significantly higher. The duration of acute headaches, migraine related disability was significantly higher in those with comorbid depression. Except for the psychological domain of WHO-QOL, all the other domains were significantly affected.

Table 5: Comparison of characteristics among males and females with depression.

	Males (N=6) 15.78%	Females (N=25) 28.08%	p value
	Mean ±Std.Dev	Mean ±Std.Dev	
Age(yrs)	35±10.54	34.72±5.75	0.92
Headache duration (yrs)	2.16±1.29	3.74±3.66	0.31
Duration of each episode (hrs.)	28±16.39	24.48±20.17	0.69
Frequency per month	7.33±3.61	5.68±3.18	0.58
Migraine days	10±4.47	7.12±5.69	0.25
HIT	73.66±6.71	68.6±5.13	0.04
MIDAS	37.33±9.56	25.84±9.12	0.01

Though migraine related disability was less in females, depression was twice more common in females which suggests that females are more susceptible of having depression with comorbid migraine.

DISCUSSION

Depression is the most common cause of disability worldwide¹.

Migraineurs tend to have 3 fold relative risk of developing depression compared with non – migraineurs¹⁰.

A study done by Lipton et al¹¹ showed there was higher risk of current depression among patients with migraine.

Similar to our study, Patel et al¹² in their study had also found that depression was comorbid in 28% of migraineurs.

The present study found that duration of acute headaches, migraine related disability was higher in those with comorbid depression. In our study we did not find correlation of duration and frequency of migraine which was in contrast to study done by Mitsikostas et al¹³ where they found an association of frequency of migraine and duration of attacks with comorbid depression

The present study also found that migraine and depression significantly decreased health related quality of life which was similar to the study done by Lipton et al¹¹.

CONCLUSION

Depression is a common comorbid condition in migraine. Depression is more common in females with migraine. The longer acute headaches and higher migraine related disability are contributing factors for development of comorbid depression.. Quality of life is also significantly affected in those with comorbid depression

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