ORIGINAL RESEARCH

Assessment of Sexual Quality and Sexual Dysfunction among Females with Migraine

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ABSTRACT

Aim: Migraine is one of the most widely reported primary headaches, three times more common in women. It has a massive impact on socio-occupational functioning and personal life events. Sex is a key function of human beings with a fundamental role in reproduction. It integrates physical, emotional and psychological factors and affects quality of life in all domains. Sexual Quality is interlinked to sexual dysfunctions which is in turn interlinked to all major Physical and/or mental illnesses.In Indian settings, where Sexual life is hidden behind curtains of societal norms and taboos, many of these dysfunctions and problems go unnoticed. **Methods:** Study Period- October 2022-January 2023. Cross sectional study
Study Centre- Sri Aurobindo Medical, College & P.G. Institute, Indore(M.P.). Sample size- 102. Inclusion- Sexually active females > 18 years, cohabiting with partner >=8 months and have a diagnosis of migraine (as per ICHD 3). Exclusion- Those with pre existing major mental & behavioral disorders and those unwilling for informed consent. Tools Used- Semi Structured proforma MIDAS*, FSFI^, SQL-F#(*Migraine Disability Assessment Scale, ^Female Sexual Function Index, #Sexual Quality of Life Female). **Result:** Mean Age of the patients was 35.5 (± 8.5) years. Most of our study population was from an urban background (n= 73) and belonged to Hindu religion (n=75). Education status of the study population had the highest number in the Graduation group (n=37) followed by secondary education (n=24) and post graduation (n=24). Most of them had skilled occupation(n=52) and were belonging to the upper middle socio-economic status (n=41). The Mean Age of onset of the disease was 29.2 (±8.3) years with maximum number of patients experiencing the disease between 21-25 years(n=39). The Mean Duration of illness was 5.1 (±2.9) years, and most of the patients seeked an Allopathic treatment with a mean duration of treatment being 3.2 (±2.5) years.Most patients had no comorbid diseases (n=59) and had a frequency of sexual intercourse of 1-3 times/week (n=85). The mean MIDAS scores for the study population were 27.5 (±17.2). The mean SQL-F (Sexual Quality of Life- female) Score was 56.9 (±11.2). The mean FSFI (Female Sexual Function Index) Score was 27.3 (±4.6). **Conclusion:** Most studies in females with migraine have looked into Quality of life and functional impairment, Sexual health and functioning usually being ignored. Our study is one of the first in Central India, trying to assess the correlation between sexual life and migraine. Positive correlation found in the study throws light on the often ignored sexual dysfunction among patients of migraine thereby leading to poor quality of life. Further studies with larger sample size in this context need to be planned. It is imperative for treating physicians to assess the sexual dysfunction and identify population needing referrals and treatment among female patients of migraine.

Key words: Migraine, Sexual Function, Sexual Quality Of Life

INTRODUCTION

Migraine is a common disabling primary headache disorder. Many epidemiological studies have documented its high prevalence and socio-economic and personal impacts. It is a neurological disease characterized by moderate to-severe headache and accompanying autonomic, affective and sensory features that affect 1 billion people globally. In the Global Burden of Disease Study2010 (GBD2010), it was ranked as the third most prevalent disorder in the world. In GBD2015, it was ranked third–highest cause of disability worldwide in both males and females under the age of 50 years. According to the Global Burden of Disease study, more than 1 billion people were suffering from migraine in 2016,[1] and this made migraine one of the most prevalent neurological disorders world over. More common among women as compared to men. Migraine is one of the first cause of disability worldwide among women between the age of 15 and 49 years, thus affecting a major part of their reproductive and sexual lives.

As described in ICHD 3, migraine has two major types. Migraine without aura is a clinical syndrome characterized by headache with specific features and associated symptoms. Migraine with aura is primarily characterized by the transient focal neurological symptoms that usually precede or sometimes accompany the headache. Some patients also experience a prodromal phase, occurring hours or days before the headache, and/or a post dromal phase following headache resolution. Prodromal and post dromal symptoms include hyperactivity, hypoactivity, depression, cravings for particular foods, repetitive yawning, fatigue and neck stiffness and/or pain. Migraine is a chronic disorder affecting a lot of women worldwide, and is associated with different psychological problems such as depression, poor sleep, and sexual dysfunction.[2]

Sexuality is an integral part of human life. It is a multidimensional, complex phenomenon with various biological, social, interpersonal, and cul¬tural aspects. Sexual function is closely related to a large number of different organ systems in the body, including the neurological, mental, vascular, and endocrine systems. Sex is a key function of human beings with a fundamental role in reproduction. It integrates physical, emotional and psychological factors and affects quality of life in all domains. Sexual Quality is interlinked to sexual dysfunctions which is in turn interlinked to all major Physical and/or mental illnesses.

Sexual dysfunction is defined as a level of impairment that is be caused by interpersonal difficulties and stress in psychophysiological changes that constitute the cycle of sexual desire or sexual response. Sexual functioning impairments are common among women with migraine, with 57%–90% of participants across studies indicating some level of impairment in sexual functioning.[3] Sexual dysfunction is a complaint in cases with migraine, which is not regarded as it should be. Recent studies have suggested that all aspects of sexual health in women with migraine are affected ranging from Alteration of sexual desire, genital arousal, and orgasm along with pain threshold change.

However, evidence is less consistent regarding whether more frequent and severe migraine attacks contribute to greater sexual functioning impairments. Thus, it is unclear whether migraine directly contributes to sexual functioning impairments and increased risk for FSD or if these relationships are influenced by a third variable and needs attention.[2,4]

MATERIALS AND METHODS

After seeking approval from the institutional ethics committee, a cross-sectional analytical study was conducted in Psychiatry OPD of Sri Aurobindo Medical college and Post-graduate Institute, Indore. After informing the procedure and rationale for the study, 102 Female patients, diagnosed with Migraine as per ICHD 3, and above 18 years of age, being sexually active in the last 4 weeks, who consented to participate in the study were included.

An interview was taken, and socio-demographic details taken on a semi-structured proforma.

MIDAS(Migraine Disability Assessment score) was used to assess the severity of the migraine headache, SQL-F(Sexual Quality of Life- Female) was used to assesses the relationship between female sexual dysfunction and quality of life , and FSFI(Female sexual function index) was used to measure various aspects of sexual functioning. Appropriate statistical tests were applied to the data obtained and value of $P < 0.05$ was considered statistically significant.

RESULTS

Mean Age of the patients was 35.5 (± 8.5) years. Most of our study population was from an urban background (n= 73) and belonged to Hindu religion (n=75).

Education status of the study population had the highest number in the Graduation group (n=37) followed by secondary education (n=24) and post graduation (n=24). Most of them had skilled occupation(n=52) and were belonging to the upper middle socio-economic status (n=41).

The Mean Age of onset of the disease was 29.2 (±8.3) years with maximum number of patients experiencing the disease between 21-25 years(n=39).

The Mean Duration of illness was 5.1 (±2.9) years, and most of the patients seeked an Allopathic treatment with a mean duration of treatment being 3.2 (±2.5) years. Most patients had no comorbid diseases (n=59) and had a frequency of sexual intercourse of 1-3 times/week (n=85). The mean MIDAS scores for the study population were 27.5 (±17.2).

The mean SQL-F (Sexual Quality of Life- female) Score was 56.9 (±11.2). The mean FSFI (Female Sexual Function Index) Score was 27.3 (±4.6).

Age(years)	Number of patients
20-30	40
31-40	39
>40	23

Residence	Number of patients
URBAN	73
Hindu	75

Education	Number of patients
Primary	5
Secondary	24
Higher secondary	9
Graduation	37
Post Graduation	24

Religion	Number of patients
Hindu	75
Muslim	16
Christian	6
Sikh	4

Socio-economic status	Number of patients
Upper Low	37
Lower Middle	20
Upper Middle	41
Upper Class	4

Age at onset (years)	Number of patients
<18	1
18-20	8
21-25	39
26-30	18
31-35	16
36-40	10
>40	10

Duration of illness(years)	Number of patients
<1	4
1-3	23
4-6	52
7-9	13
10-12	7
>12	3

No. Of episodes/month	Number of patients
<5	63
5-10	33
>10	6

Midas Grade	Disability	Score	Number of patients
I	Little or No	0-5	2
II	Mild	6-10	15
III	Moderate	11-20	22
IV	Severe	21+	63

Co-morbidities	Number of Patients
Hypertension	15
Diabetes Mellitus	11
Hypertension & Diabetes Mellitus	6
Hypothyroidism	11
None	59

frequency of sexual intercourse (per week)	number of patients
1-3	85
4-6	16
>6	1

Variables	Correlation value(r)	p Value
FSFI vs MIDAS	0.9	0.001
FSFI vs SQL-F	0.488	0.001
SQL-F vs MIDAS	0.42	0.001

DISCUSSION

This cross sectional study was carried out with an aim to identify the repercussions of migraine headache on the sexual quality of life and sexual functioning in females. This study was carried out in the Psychiatry Department Sri Aurobindo Medical College and Post Graduate Institute, Indore (M.P.), which is a tertiary care centre located in central India, and caters to the healthcare needs of population of the city as well as neighbouring districts.

Subjects were recruited amongst the patients attending the out patient and the in patient department. Recruitment was accomplished by using inclusion and exclusion criteria. Consent was taken prior to administration of the scales used.

Our study revealed that most of the study population were belonging to the age group of 20-30 years and belonged to the urban areas, and Hindu religion.

This can be owed to the location of our study centre being in a tier 2 city and catering population of the region. The age of study population is supplemented by presentation of earliest symptoms of migraine headache in the teenage years, with increasing socio-occupational and functional impairments in coming years, and hence a higher chance of seeking treatment. These results were in concordance with a study conducted by Balakrishnan R. et al in Tamil Nadu in 2019.[3,4]

The age of onset of migraine in most females were between 21-25 years, with the mean age of onset being 29.2 (±8.3) years.

The mean duration of illness was 5.1 (±2.9) years with most females falling in the category of 4-6 years duration, however, the mean duration of treatment was 3.2 (±2.5) years. Most patientswere seeking an Allopathic treatment, majorly over the counter drugs for a long period before seeking professional help from a neurologist or psychiatrist, with about 40% patients seeking no treatment.[3,4]

This is in concordance with previous studies conducted by Sulena et al, which depicts a treatment gap between patients and those seeking treatment, and this can be attributed to poor understanding of the symptoms and poor knowledge of specific treatment options available.

Most of the study population had no comorbidities and this can be explained by the age group and a comparatively lower prevalence of lifestyle diseases like Hypertension, diabetes mellitus, etc.[5-8]

On assessing the frequency of sexual intercourse per week, for the females, most were in the category of 1-3 times per week. In a country like India, females have little to no say in the domain of sexual life and some are even guarded to discuss or provide any information regarding the same and this could be the limitation of our data collected.

MIDAS (Migraine disability assessment Scale) was used to measure the impact of headache on the socio occupational functioning of patients, and most of the study population, n= 63, were in Grade IV MIDAS score, i.e., Severe disability.

And the mean MIDAS score was 27.5 (±17.2), which was in concordance with a study of the same region done by Goyal N. and others in 2020.[9]

FSFI(Female Sexual Function Index) was used to assess six different domains of sexual functioning in the study population. The mean FSFI scores were 27.3 (±4.6) which represents a decent sexual functioning, as the score indicates a higher score means a better functioning. This score is slightly higher as compared to previous studies conducted in the domain.[10-13]

SQL-F (Sexual Quality of Life Female) was used to assess the relationship between sexual function and quality of life in the study population. Higher scores indicate a better quality of life. In our study population, the mean SQL-F scores were 56.9 (±11.2). the scores are lower than the average population and are in concordance with most studies, and can be explained ny the impairment that migraine causes in most domains of life, and the additional stress it creates for the patients.[14]

CONCLUSION

Most studies in females with migraine have looked into Quality of life and functional impairment, Sexual health and functioning usually being ignored.

Our study is one of the first in Central India, trying to assess the correlation between sexual life and migraine.

Positive correlation found in the study throws light on the often-ignored sexual dysfunction among patients of migraine thereby leading to poor quality of life.

Further studies with larger sample size in this context need to be planned.

It is imperative for treating physicians to assess the sexual dysfunction and identify population needing referrals and treatment among female patients of migraine.

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