ASSESSMENT OF PRESCRIPTION TRENDS, QUALITY OF LIFE, AND ADVERSE DRUG REACTIONS IN MIGRAINE MANAGEMENT: A CROSS-SECTIONAL STUDY AT A TERTIARY CARE TEACHING HOSPITAL

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ABSTRACT

Objective: To assess the prescription patterns in migraine patients, evaluate the impact of migraine on their quality of life, and identify and report any adverse drug reactions (ADRs).

Background: Migraine is a common neurological illness characterized by the release of inflammatory chemicals in the brain, leading to pain in the cranial area. It predominantly affects individuals between the ages of 35 and 45, with a higher incidence among females. Various symptoms, such as nausea, vomiting, and sensitivity to light and sound, are observed in migraine patients. The exact cause of migraines is unknown, but factors like genetic predisposition, hormonal influences, and lifestyle triggers play a role.

Methodology: A cross-sectional observational study was conducted at Parul Sevashram Hospital over a 10 months. In this study patients were enrolled form the inpatients and outpatient department of neurology to assess the prescription patterns, quality of life, and adverse drug reactions (ADRs) among migraine patients. Data was collected from patients' case sheets and prescriptions. The HIT-6 scale and Migraine Specific Quality of Life (MSQoL) Questionnaire were used to evaluate quality of life, and ADRs were recorded using the CDSCO reporting form.

Results: A total of 153 patients with migraine were included in the study, with a higher The age group of 26-40 years had the highest number of migraine patients (41%). Naproxen and Domperidone were the most frequently prescribed drugs, accounting for 86.27% of all prescriptions, followed closely by Flunarizine (54.90%) in preventive treatment.

Conclusion: This study highlights the higher prevalence of migraines among females, emphasizing the need for gender-specific management strategies. Common prescriptions include naproxen, domperidone, and flunarizine, with NSAIDs and antiemetics prevailing. Quality of life assessments show moderate scores, varying by age, gender, and pain intensity, with males reporting higher scores in certain domains, suggesting gender-specific coping mechanisms. The findings underscore the

complexity of migraine management and advocate for personalized approaches tailored to individual patient needs.

Keywords: Migraine, Migraine Treatment, Quality of life, Migraine specific Quality of life, ADR

1. INTRODUCTION

Migraine is a neurological disorder marked by recurrent and intense headaches primarily affecting one side of the head, it is a condition that can have a profound impact on a person's daily life.[1] The prevalence of migraine in India is 25.6% and higher in women.[2] The global prevalence of migraine is 14-15%.[3] These debilitating headaches are often accompanied by distressing symptoms such as nausea, vomiting, and heightened sensitivity to light and sound. Migraines come in various forms, with the most common being migraine without aura and migraine with aura.[1] The latter includes sensory disturbances like visual changes before the headache strikes. This condition unfolds in four distinct stages, although not everyone experiences all of them. The prodrome stage presents subtle warning signs days before the migraine, while the aura introduces sensory alterations.[1] The attack phase is characterized by the excruciating headache itself, and post-drome follows with lingering symptoms. Understanding these facets of migraines is essential for effective management, ultimately enhancing the quality of life for those who grapple with this challenging neurological disorder.[1] Understanding the impact of migraines on quality of life is crucial, as it extends beyond physical well-being to include psychological and social aspects.[5] Migraines often disrupt daily activities, work productivity, and social interactions. Factors like attack frequency, intensity, and duration significantly affect quality of life, especially for younger individuals, particularly women aged 20 to 40, who experience more severe and frequent attacks. Addressing this issue requires a holistic approach that considers emotional, social, and functional well-being, beyond just pain management.[4] Additionally, understanding prescription patterns is key for optimizing migraine treatment, which often involves a multifaceted approach. These patterns vary based on condition severity, patient preferences, and medical guidelines. Treatment plans include acute medications for active attacks and preventive medications to reduce their occurrence, tailored to the patient's history and lifestyle.[5] Adverse Drug Reactions (ADRs) in migraine treatment are a significant concern, ranging from mild discomfort to severe complications. Healthcare providers must carefully manage these reactions, balancing the benefits of pain relief and attack prevention against potential risks. A thorough understanding of ADRs is essential for informed decision-making and optimizing treatment outcomes.[6]

2. METHODOLOGY

This was a cross sectional study conducted from October 2023 to January 2024 at the Department of Neurology, Parul Sevashram Hospital, Vadodara. The study was initiated after getting approval from Parul Sevashram Hospital Ethics Committee. All Migraine patients of either gender and age ≥18 years fulfilling the ICHD-3 criteria (International classification of headache disorders-3rd edition) that visited or admitted to the department of Neurology, Parul Sevashram Hospital were enrolled in the study after explaining to the patients the details of the study, the ICF was taken. All the relevant data was obtained from the patients' medical records and through counselling the patients who visited the Out- Patient Department (OPD) or In-Patient Department (IPD). After the data collection, all the data were exported to statistical software for statistical analysis.

3. RESULTS

Out of 153 patients with migraine, 49 (32%) were males and 104 (68%) were females. The prevalence of migraine was higher among females compared to males. In our study, the patients' age range varies from 18 to 62 years. The highest number of patients with migraine was observed in the age group of 26-40 years, accounting for 41% (N=63), with a higher prevalence among females at 44.23% (N=46). The next highest group of migraine patients was in the age range of 18-25 years, comprising 30% (N=46), while the lowest number of patients with migraine was found in the age group of 55-62 years,

representing 5% (N=7). The average age of the patients was 34.08 years. In this study, the maximum number of patients were housewives [35% (N=54)], followed by farmers [20% (N=30)], then people doing service (Job) and students [18% (N=27]. Lastly, the least number of patients were involved in the business [3% (N=5)] and doing labour work [6% (N=9)]. Out of 153 patients, 109 (71.24%) were married, 43 (28.10%) were single, and only 1 (0.65%) was divorced. The study found that the largest portion of patients, 43.14% (N=66), had only completed primary school education. A significant number, N=34 (22.22%) patients, had secondary school as their highest level of education, which matched the percentage of patients who were college graduates. The small portion of 5.23% (N=8) of the study population had completed their post-graduation, and 7.19% (N=11) were illiterate. According to the inclusion criteria, comorbid conditions were found in 13 patients (8.50%). Out of these 13 patients, 6 had hypertension, 2 were having the history of diabetes, and 2 (1.31%) had both hypertension and diabetes, which also match the patients had history of epilepsy. Cerebrovascular accident (CVA) was observed to be least common comorbidity among the patients, accounting for only 1 patient. In this study, unilateral headache was reported by 57 % (N=87) of patients, while 43 % (N=66) experienced bilateral headache. The majority of patients had the pulsatile type of headache [92% (N=140)]. Very few, merely 8% (N=13), had the no pulsatile type of headache. In this study, 69 (45.10%) patients had a headache duration of 4-6 hours, followed by a headache duration of 1-3 hours, accounting for 30.07%. The least number of patients had a headache duration of 13-24 hours, with 1 (0.65%) patient, and only 2 (1.31%) patients had a headache duration of >24 hours. Out of 153 patients, 45% (N=69) had a moderate pain intensity, 31% (N=48) had a mild pain intensity, and 24% (N=36) had a severe pain intensity. The majority had photophobia (N=129), followed by phonophobia (N=80), and nausea (N=76). Vomiting was found to be the least common symptom, contributing only 56 patients. Out of 153 patients, 135 (88%) had a migraine without aura, only 7 (5%) patients had a migraine with aura, and 11 (7%) had chronic migraines. In this study of 153 patients, sunlight exposure emerged as the most prevalent triggering factor, impacting 128 (83.66%) patients, while dehydration was the least common, potentially affecting only 7 (4.58%) patients. Lack of sleep closely followed, affecting 109 (71.24%) patients, with hormonal changes affecting 26 (16.99%) patients. Other notable triggers included stress, observed in 100 (65.36%) patients, and skipping meals, affecting 85 (55.56%) patients.

Table 1.Socio-demoghraphic of patients (N=153)

Study variable	N (%)
Gender	
Male	49 (32%)
Female	104 (68%)
Age In Years	
18-25	46 (30%)
26-40	63 (41%)
41-55	37 (24%)
56-62	7 (5%)
Education	
Illiterate	11 (7.19%)
Primary School	66 (43.14%)
Secondary School	34 (22.22%)
Graduate	34 (22.22%)
Post Graduate	8 (5.23%)
Occupation	
Housewife	54 (35%)
Farmer	30 (20%)
Student	28 (18%)
Service	27 (18%)

Labour	9 (6%)
Business	5 (3%)
Comorbid conditions	
Hypertension	6 (3.92%)
Diabetes	2 (1.31%)
Hypertension+ Diabetes	2 (1.31%)
Epilepsy	2 (1.31%)
CVA	1 (0.65%)
Headache	
Unliteral	87 (57%)
Bilateral	66 (43%)
Headache type	
Pulsating and throbbing	140 (92%)
Non pulsating	13 (8%)
Headache Duration (In hours)	
1-3 hours	46 (30.07%)
4-6 hours	69 (45.10%)
7-12 hours	35 (22.88%)
13-24 hours	1 (0.65%)
>24 hours	2 (1.31%)
Pain intensity	
Mild	48 (31%)
Moderate	69 (45%)
Sever	36 (24%)
Associated Symptoms	
Photophobia	129
Phonophobia	80
Nausea	76
Vomiting	56
Types of Migraine	
Episodic Migraine without Aura	135 (88%)
Episodic Migraine with Aura	7 (5%)
Chronic Migraine	11 (7%)
Triggering Factors	
Sunlight Exposure	128 (83.66%)
Lack of sleep	109 (71.24%)
Stress	100 (65.36%)
Skipping Meal	85 (55.56%)
Travelling	73 (47.71%)
Weather changes	58 (37.91%)
Hormonal Changes	26 (16.99%)
Certain foods	15 (9.80%)
Dehydration	7 (4.58%)

In the investigation of prescription patterns within the study, a total of 549 drugs were prescribed. Out of 153 prescriptions, Naproxen and domperidone were the most commonly prescribed drugs, accounting for 86.27% (N=132) of prescriptions. Flunarizine accounted for 54.90% (N=84) of prescriptions, whereas Ondansetron and sodium valproate were the least prescribed, accounting for

1.30% (N=2) and 1.96% (N=3) of prescriptions respectively. By drug class, NSAIDs (Naproxen, Paracetamol) emerged as the most commonly prescribed class, with 145 (94.77%) prescriptions, followed by Antiemetics (Domperidone, Ondansetron) with 134 (87.58%) prescriptions. Calcium channel blockers (Flunarizine) and Proton Pump Inhibitors (Pantoprazole, Rabeprazole) were prescribed with similar frequencies, each with 84 (15.30%) prescriptions. The less commonly prescribed classes were β-adrenergic Blockers (Propranolol) and Antiepileptics (Divalproex, Sodium Valproate), which accounted for 9 (5.88%) and 25 (16.33%) prescriptions respectively. In the study, out of 153 patients, 7 were prescribed monotherapy with various medications. Among these, Flunarizine emerged as the most commonly prescribed medication for monotherapy, with 4 (57.14%) patients receiving it. Amitriptyline was administered to 2 (28.57%) patients, and Dosulepin was prescribed to only 1 (14.28%) patient. In the study, out of 153 patients, 13 were prescribed dual therapy regimens. Among these combinations, the most prevalent dual therapy regimen observed in the study was amitriptyline paired with paracetamol, with 6 (3.92%) patients receiving this combination. And the least commonly administered combinations were amitriptyline paired with divalproex, amitriptyline with flunarizine, and flunarizine with paracetamol, each administered to 1 (0.65%) patient. In the study involving 153 patients, a fixed dose combination of naproxen and domperidone was investigated as a potential treatment regimen. This combination was administered to 132 (86.27%) patients. In the study, out of 153 patients, 133 were prescribed various combinations of polytherapy. Among these combinations, the most prevalent was the regimen comprising Flunarizine, Naproxen, Domperidone, and Pantoprazole/Rabeprazole, which was prescribed to 25 (18.80%) patients. Following closely behind was the regimen of Flunarizine, Naproxen, and Domperidone, which was administered to 21 (15.79%) patients. Other combinations included Naproxen, Domperidone, and Pantoprazole/Rabeprazole (11 patients, 8.27%), Naproxen, Domperidone, and Dosulepin (8 patients, 6.02%), and Amitriptyline, Flunarizine, Naproxen, Domperidone, and Pantoprazole/Rabeprazole (7 patients, 5.26%).

Table 2. Prescription Pattern

Preventive Treatment	
Drug	**N(%)**
Flunarizine	84(54.90 %)
Dosulepin	40(26.14 %)
Amitriptyline	28(18.30 %)
Divalproex	22(14.37 %)
Propranolol	9(5.88 %)
Sodium Valproate	3(1.96 %)
Abortive Treatment	
Drug	**N(%)**
Naproxen	132(86.27 %)
Paracetamol	13(8.49 %)
Supportive Treatment	
Drug	**N(%)**
Domperidone	132(86.27 %)
Rabeprazole	58(37.90 %)
Pantoprazole	26(16.99 %)
Ondansetron	2(1.30 %)

Monotherapy	N(%)
Flunarizine	4(57.14 %)
Amitriptyline	2(28.57 %)
Dosulepin	1(14.28 %)
Total	7(100 %)
Dual Therapy	**N(%)**
Amitriptyline, Paracetamol	6(46.15 %)
Naproxen, Domperidone	4(30.77 %)
Amitriptyline, Divalproex	1(7.69 %)
Amitriptyline, Flunarizine	1(7.69 %)
Flunarizine, Paracetamol	1(7.69 %)
Total	13(100 %)
Fixed Dose Combination	**N(%)**
Naproxen + Domperidone	132(86.27 %)

Table 3. Drug Prescribed by Class

Sr. No	Drug Class	Drugs	N(%)
1	NSAIDs	Naproxen	145(94.77%)
		Paracetamol	
2	Antiemetics	Domperidone	134(87.58%)
		Ondansetron	
3	Proton Pump Inhibitor	Rabeprazole	84(54.90%)
		Pantoprazole	
4	Calcium channel blocker	Flunarizine	84(54.90%)
5	Antidepressants	Dosulepin	68(44.44%)
		Amitriptyline	
6	Antiepileptics	Divalproex	25(16.33 %)
		Sodium Valproate	
	β-adrenergic Blocker	Propranolol	9(5.88%)

The Headache Impact Test-6 scale revealed that among all patients, 65 (43%) were categorized as grade IV (severe impact), followed by 44 (29%) classified as grade III (substantial impact). The remaining patients were distributed as follows: 39 (25%) in grade II (moderate impact) and 5 (3%) in grade I (little impact). Mean score of chronic migraine patients (62.18) was higher than patients with episodic migraine (58.58). Out of 153 patients, 11 had chronic migraine. Among them, the highest impact grade was IV (severe impact) with 8 (72.72%) patients, while the lowest was II (moderate impact) with only 1 (9.09%) patient. Additionally, out of the 142 patients with episodic migraine, the highest impact grade was IV (severe impact) with 57 (40.14%) patients, while the lowest was grade I (little impact) with 5 (3.52%) patients.

The mean MSOQL score for all patients was 61.15±8.31. Specifically, for Role Function - Restrictive (RR), the mean score was 72.29±9.97, indicating moderate functioning in this domain. Role Function - Preventive (RP) had a mean score of 77.68±14.59, indicating relatively better functioning in this

domain. Emotional Function (EF) had a mean score of 70.15±15.80, suggesting moderate emotional well-being among patients. The comparison of quality of life measures between chronic migraine and episodic migraine sufferers indicated that individuals with episodic migraine generally reported higher scores across various domains. Specifically, in Role Function - Preventive (RP), those with episodic migraine scored higher with a mean of 77.89±14.93 compared to 75±9.22 in chronic migraine patients. Following this, in Role Function - Restrictive (RR), episodic migraine sufferers also scored higher with a mean of 72.82±9.646 compared to 65.45±12.08 in chronic migraine patients. Emotional Function (EF) scores followed a similar trend, with episodic migraine patients reporting a mean score of 70.65±15.92 compared to 63.63±13.12 in chronic migraine patients. From the score of the MSQOL scale, the quality of life was evaluated among a total of 153 patients. The majority of patients, accounting for 133 (86.93%), reported a moderate quality of life, while a smaller proportion of 15 (9.80%) indicated poor quality of life. Conversely, only 5 (3.27%) patients reported a good quality of life.

The comparison of HIT-6 scores between genders indicates that females generally report slightly higher scores compared to males. Specifically, females have a mean HIT-6 score of 58.69±4.96, while males have a slightly lower mean score of 58.35±5.43. In analyzing HIT-6 scores across different age groups, individuals aged 18-25 report the highest scores, with a mean HIT-6 score of 59.33±5.72, while those aged 56-62 report the lowest scores, with a mean of 56.57±5.44. Following this, individuals aged 41-55 have slightly higher scores, with a mean of 57.89±5.05, and those aged 26-40 report slightly higher scores, with a mean of 58.67±4.60. The analysis of HIT-6 scores based on pain intensity levels reveals that individuals experiencing severe pain report the highest scores, with a mean of 61.33±5.64. Following this, individuals experiencing moderate pain have slightly lower scores, with a mean of 57.93±4.85. Conversely, individuals experiencing mild pain report the lowest scores, with a mean of 57.46±4.32.

The comparison of quality of life measures between genders indicated that males generally reported higher scores across various domains compared to females. Specifically, in Role Function - Preventive (RP), males scored the highest with a mean of 79.9±13.13, followed closely by Emotional Function (EF) with a mean of 75.1±15.38. Following this trend, males also scored higher in Role Function - Restrictive (RR), with a mean of 71.95±9.325, compared to females with a mean of 72.45±10.31. However, in Emotional Function (EF), females reported lower scores with a mean of 67.82±15.53 compared to males. The analysis of quality of life measures across different age groups revealed that individuals aged 41-55 generally reported the highest scores across various domains. Specifically, in Role Function - Preventive (RP), this age group scored the highest with a mean of 81.35±13.57, followed closely by Emotional Function (EF) with a mean of 73.87±13.91. Following this, individuals aged 55-62 reported the next highest scores, particularly in Role Function - Restrictive (RR), with a mean of 77.95±6.539, and Emotional Function (EF) with a mean of 77.14±16.71. In contrast, younger age groups, particularly those aged 18-25 and 26-40. The analysis of quality of life measures based on pain intensity levels revealed that individuals experiencing mild pain generally reported the highest scores across various domains. Specifically, in Role Function - Preventive (RP), this group scored the highest with a mean of 80.52±16.35, followed closely by Role Function - Restrictive (RR) with a mean of 72.87±8.04. Following this trend, Emotional Function (EF) scores were also relatively high, with a mean of 70.69±17.70. Conversely, individuals experiencing severe pain reported lower scores across all domains, with Role Function - Preventive (RP) having the highest mean score of 73.89±11.96.

The data indicates that Flunarizine had the highest number of adverse drug reactions (ADRs), primarily causing weight gain in five cases. Additionally, Amitriptyline and Divalproex were each associated with one instance of blurred vision and dizziness, respectively.

Table 4. Quality of life Score

Factors	HIT-6 Score	MSQoL overall	Role Function - Restrictive (RR)	Role Function - Preventive (RP)	Emotional Function (EF)
Male	58.35±5.43	63.04±7.362	71.95±9.325	79.9±13.13	75.1±15.38
Female	58.69±4.96	60.26±8.614	72.45±10.31	76.63±15.18	67.82±15.53
18-25	59.33±5.72	60.89±8.42	70.8±10.5	78.91±14.14	69.56±15.94
26-40	58.67±4.60	59.33±8.80	70.98±9.05	75±15.66	67.62±16.37
41-55	57.89±5.05	64.10±6.95	75.28±10.63	81.35±13.57	73.87±13.91
55-62	56.57±5.44	63.71±5.38	77.95±6.539	74.29±8.381	77.14±16.71
Mild	57.46±4.32	62.24±8.48	72.87±8.04	80.52±16.35	70.69±17.70
Moderate	57.93±4.85	61.8±8.17	73.87±10.08	77.68±14.29	70.82±14.87
Sever	61.33±5.64	58.47±7.97	68.48± 11.31	73.89±11.96	68.15±15.13

DISCUSSION

Migraine, a prevalent neurological disorder characterized by recurrent, intense headaches, presents a significant global health burden. It affects individuals of all ages and genders, impacting their daily activities, productivity, and overall quality of life. With its multifaceted nature, migraine often manifests with additional symptoms such as nausea, sensitivity to light and sound, further exacerbating its debilitating effects. Understanding the complexity of migraine and its treatment landscape is crucial for optimizing patient care and improving outcomes in clinical settings[1][2]. This study aimed to assess the prescription pattern, migraine-related quality of life, and adverse drug reactions (ADR) in anti-migraine treatment. The discussion is based on the data obtained from 153 patients who were enrolled in this study. The prevalence of migraine was higher in females (68%) than in males (32%), which is consistent with the findings of Rajesh Hadia et al[7], Kiran Bhave et al[8], and Sumit Singh et al[9], Sarah A et al[10]. In the current study, the mean age of the migraine population was found to be 34.08 years, with the condition being more common in the age group of 26 to 40 years (41%), followed by 18 to 25 years (30%), which aligns with the findings of Rajesh H et al[7] and Sumit S et al[9], where the majority of patients were in the age group of 18-40 years. In our study, 53% patients were unemployed which was similar to Sumit S et al[9] and contrst with Rajesh H et al[7]. In our study, we observed that 51.63% of the patients experienced unilateral headaches, while the remaining individuals experienced bilateral headaches, which was aligning with the study of Rajesh H et al[7] and slightly different to the Subhransu S et al[11]. The study discovered that 92% of patients experienced pulsatile (throbbing) headaches, aligning closely with findings from Rajesh H et al[7] and Subhransu S et al[11]. In this present study the majority of patients (45.10%) had a headache duration of 4-6 hours and very few 2 patients had a headache duration >24 hours, which is different form study conducted by Rajesh H et al[7]. Out of 153 patients, 45% had a moderate pain intensity, 31% had a mild pain intensity and 24% had a severe pain intensity, which is similar to the study of Rajesh H et al[7] and different from the Blumenfeld AM[12]. Identifying triggers is crucial for understanding the underlying causes and severity of migraine attacks. In our study, each patient experienced more than one triggering factor. Commonly reported triggers included bright light/sun exposure, loud noise, , lack of sleep, stress, and skipping meals. Conversely, less frequently identified triggers encompassed activities such as dehydration, certain foods. Consistent with other Indian studies, stress, missed meals, and sleep deprivation emerged as primary factors triggering migraine attacks[7][11]. In present study the majority had a photophobia 83.34%, phonophobia 52.28% and nausea 49.67%. Vomiting was found be the least common symptom contributing only 36%. This associated symptoms were found to be consistent with the study by Rajesh H et al[7], Subhransu S et al[11] and Sumit S et al[9]. The investigation into prescription patterns within our study revealed a comprehensive overview of medication utilization for migraine management. Among the 153 prescriptions analyzed, Naproxen and Domperidone emerged as the most frequently prescribed drugs, constituting 24% of all prescriptions, followed closely by Flunarizine at 15%. Conversely, Ondansetron and Sodium Valproate were the least prescribed, each accounting for only 0.36% and 0.55% of prescriptions, respectively. Same pattern found in study conducted by Sumit Singh et al[9] and slightly different for the acute treatment form Rajesh H et al[7]. Regarding monotherapy, among

the 153 patients studied, 7 received monotherapy, with Flunarizine being the most commonly prescribed medication, administered to 57.14% of patients. Amitriptyline was prescribed to 28.57% of patients, while Dosulepin was prescribed to only 14.28% of patients. In terms of dual therapy, 13 out of 153 patients received dual therapy regimens. In previous study more number of patients were prescribed with monotherapy[7][14]. The most prevalent combination observed was amitriptyline paired with paracetamol, administered to 3.92% of patients, while amitriptyline paired with divalproex, amitriptyline with flunarizine, and flunarizine with paracetamol were each administered to 0.65% of patients. A fixed-dose combination of naproxen and domperidone was investigated as a potential treatment regimen for 86.27% of patients in the study, aligning closely to the Singh et al[32]. Regarding polytherapy, out of 153 patients, 133 received various combinations. The most prevalent regimen consisted of Flunarizine, Naproxen, Domperidone, and Pantoprazole/Rabeprazole, prescribed to 18.80% of patients, followed closely by the regimen of Flunarizine, Naproxen, and Domperidone, administered to 15.79% of patients. Other combinations included Naproxen, Domperidone, and Pantoprazole/Rabeprazole (8.27% of patients), Naproxen, Domperidone, and Dosulepin (6.02% of patients), and Amitriptyline, Flunarizine, Naproxen, Domperidone, and Pantoprazole/Rabeprazole (5.26% of patients).[22]

In our study, we use the HIT-6 questionnaire to evaluate the impact of headaches on individuals' Health-Related Quality of Life (HRQoL), encompassing aspects such as pain, social functioning, cognitive functioning, and psychological distress. A notable finding was that a significant proportion of subjects experienced a very severe impact (43%), followed by substantial impact (29%), moderate impact (25%), and little or no impact (3%) on their HRQoL due to headaches. The group reporting very severe impact exhibited significantly higher HIT-6 scores, indicating a severe disruption in their HRQoL attributed to headaches. Notably, the mean HIT-6 score was higher in chronic migraine than episodic migraineurs, suggesting that a chronic migraine patients experienced a very severe impact on their HRQoL due to headaches. This observation contrast with findings from a study by Rajesh H et al[7], indicating a widespread prevalence of severe HRQoL impairment among migraineurs, whether chronic or episodic, while in present study suggest that chronic migraine patients had more impaired HRQoL. Also HIT-6 score was found to be higher in the age group of 18-25, which suggest that younger have higher impact of headache on their HRQoL. Comparing HIT-6 Score with the pain intensity was found that patients with severe intensity were had a higher score compare to the patients with the mild and moderate pain intensity. In our study, we utilized the MSQOL v2.1 questionnaire to assess Health-Related Quality of Life (HRQoL), focusing on three domains: Role Function-Restrictive (RR), Role Function-Preventive (RP), and Emotional Function (EF). Interestingly, our findings indicated that patients experienced more emotional than physical suffering. This was evident from the lower mean score in the Emotional Function domain compared to the other two domains, suggesting a greater impact on emotional well-being. Furthermore, when comparing the overall mean scores in migraineurs based on the migraine type, it was observed that patients with Chronic Migraine (CM) exhibited a lower mean score (56.85) compared to patients with Episodic Migraine (EM) (61.49). This discrepancy suggests that chronic migraineurs tend to have poorer HRQoL compared to episodic migraineurs. This finding was similar with the study conducted by Rajesh H et al[7]. Additionally, our findings indicate that patients diagnosed with chronic migraine scored lower across all domains compared to those with episodic migraine, suggesting a moderate quality of life for chronic migraine patients in contrast to their episodic migraine patients. Comparison of this MSQoL score with the gender, male have higher score than the female in all domain that suggest that female had greater impact on their quality of life than male. Also in age group, patents had aged 18-40 year had a less mean score that indicate that they had more impact on their quality of life.[10][15]. Additionally, patient with severe pain intensity had a lower score compare to the patients with mild and moderate pain intensity. This finding suggest that patients with severe pain intensity had a poor quality of life. From the overall score of the MSQoL questioner majority 87% of patients had a moderate quality of life, 3% of patients had a poor quality of life and only 10% of patients had a good quality of life. This finding suggest that majority of patients with migraine had moderate quality of life like previous studies[7]. Only 7 ADR were found in our study, in which most common ADR

was found to be weight gain in 5 patents, caused by drug Flunarizine. Which was matched with the finding of Subhransu S et al[9].

CONCLUSION

This extensive study provides valuable insights into the demographic, clinical features, treatment patterns, and quality of life outcomes among migraine patients. Female predominance in migraine prevalence, particularly among those aged 26-40, underscores the importance of gender-specific considerations in migraine management strategies. Furthermore, the majority of patients experiencing moderate pain intensity and unilateral pulsatile headaches highlight the diverse symptomatology of migraine presentations. The prescription patterns observed in this study indicate a diverse array of pharmacological approaches employed in the management of migraine. Naproxen and domperidone emerge as the most commonly prescribed medications, followed by flunarizine. NSAIDs and antiemetics constitute the predominant drug classes, highlighting their importance in migraine therapy. Monotherapy with flunarizine appears to be a preferred option, while fixed-dose combinations of naproxen and domperidone are widely utilized. Polytherapy regimens, particularly those containing flunarizine, naproxen, domperidone, and pantoprazole/rabeprazole, are prevalent, reflecting the complexity of migraine treatment strategies. These findings highlight the need for individualized approaches to migraine management considering the different prescription patterns observed in clinical practice. Quality of life assessments using the MSQOL and HIT-6 scales reveal moderate overall quality of life among migraine patients, with notable variations across different age groups, genders, and pain intensity levels. The impact of migraine on various domains of functioning, such as role function and emotional well-being, underscores the multifaceted nature of migraine-related disability. Interestingly, males tend to report higher quality of life scores across certain domains compared to females, suggesting potential gender differences in coping mechanisms and symptom perception. Overall, this study provides comprehensive insights into the clinical characteristics and management strategies of migraine patients, highlighting the need for personalized approaches to address the diverse needs and challenges associated with this debilitating neurological disorder.

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