Global Academic Journal of Pharmacy and Drug Research

Available online at https://www.gajrc.com
DOI: https://doi.org/10.36348/gajpdr.2024.v06i04.001

OPEN ACCESS

ISSN (P): 2706-9044
ISSN (O): 2707-255X

Original Research Article

A Cross-Sectional Study on Clinical Profiles and Quality of Life of Patients with Neuropathic Pain

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Article History
Received: 03.08.2024
Accepted: 09.09.2024
Published: 11.09.2024

Abstract: ***Background*:** Due to nerve damage in the central and peripheral nervous systems, people with neuropathic pain experience acute pain. This study evaluated the health effects of neuropathic pain and different types of pain according to various neuropathies. ***Objective*:** To evaluate the clinical characteristics and QOL of neuropathic pain patients. Study the most frequently given medications, evaluate patients with various types of neuropathic pain, determine the characteristics of neuropathic pain, analyse the effects of neuropathic pain on general health. ***Materials and Methods*:** A total of 102 patients were enrolled according to the inclusion and exclusion criteria. Patients were interviewed using Short-Form McGill Pain Questionnaire-2, RAND 36 Item Health Survey 1.0 Questionnaire. Percentage, mean, chi square and standard deviation was used mainly in Statistical analysis. ***Result*:** Out of 102 patients, 44.12% were female, and 55.88% were male. Mean age of male and female was 46.60 and 47.42 years respectively. Radiculopathy patients were in the majority (43.1%), followed by peripheral neuropathy (37.3%), myelopathy (16.7%), sciatic neuropathy (2%), and brachial plexopathy (1%). Diabetes was highest to cause peripheral neuropathy. The most commonly prescribed drug was pregabalin, and combination were gabapentin and nortriptyline. The total means of all subscales of SF-MPQ-2 questionnaire was 4.56(2.10). Mean of physical component and emotional component summary was 34.30(17.54), and 42.38(15.74). ***Conclusion*:** Diabetes, trauma, weightlifting can also cause neuropathic pain. Diabetes was among top cause for peripheral neuropathy. Burning, itching, numbness, tingling, cold freezing pain were prevalent. The emotional function of patients was better than physical function.

Keywords: Neuropathic pain, Quality of life, peripheral neuropathy, central neuropathy.

INTRODUCTION

Neuropathic pain is the condition in which severe pain occurs in patients due to nerve impairment in central and peripheral nervous system and it can also cause by failure of the nervous system. Here the nerve damage can occur due to various factors like disease state, trauma, different viral infections or some other injuries [1, 2]. It also has different consequences on patient's life like patient's sleeping cycle is disturbed, decreased routine life activity or work, decrease in body movement and

social activity etc. neuropathic pain can also cause depression and anxiety in some patients when it persists for a longer period of time [[1, 3, 4].

Numerous signs and symptoms of neuropathic pain include shooting, stabbing, tingling, and burning pains, impulsive pains that happen without any stimulation, rises in pain perception, evoked pains that are brought on by activities that generally not painful, such as brushing your hair or rubbing up against something, pins and needles-type sensations, and dysesthesia, a persistent unpleasant feeling [5].

Types of neuropathies are mostly classified as Peripheral neuropathy, Focal neuropathy, Proximal neuropathy, Autonomic neuropathy, Cranial neuropathy There are two types of cranial neuropathy, which are, auditory and optic [6, 7].

Different types of neuropathies on basis of topographic neurologic pattern are Polyneuropathy, Mononeuropathy, Radiculopathy, Myelopathy, Plexopathy [7, 8].

The prevalence of neuropathic pain in the general population was 7% worldwide [9]. In india it is seen that out of total 10,000 people approximately 5 to 2400 people had neuropathic pain [10].

Objectives

The proposed study aims to evaluate the most common causes of neuropathy, its accompanying symptoms and signs, the usual treatments for each kind of neuropathy, and the degree to which each type of neuropathy impairs a patient's quality of life. The study's primary goal was to evaluate the clinical profile of people with neuropathic pain. Other goals include identifying the clinical features of neuropathic pain, evaluating patients with various forms of neuropathic pain, determining how neuropathic pain affects patients' general health, and researching the most often recommended medications for neuropathic pain.

METHODS

Study Setup

This is cross-sectional, observational study of patients with neuropathic pain taken from both outpatient clinic and in patient department of Dhiraj general hospital, Sumandeep Vidyapeeth, Piparia, Vadodara, Gujarat, approved by research ethics committee.

Data Collection

Data was collected from December 2021 to march 2022 from general medicine, neurology, and oncology ward mainly. All the patients included are clinically diagnosed for neuropathic pain. We used the Short-Form McGill Pain Questionnaire-2 to assess different neuropathic and other pain features of patients and their severity. And we also used RAND 36 Item Health Survey 1.0 Questionnaire to assess their quality of life with neuropathic pain.

All the patients aged 18 years and above, clinically diagnosed with neuropathic pain presenting were assessed for different pain features and they were asked the question about their quality of life. All participants meet the including and excluding criteria. The patients were explained about the study and informed consent was taken before being enrolled into the study.

Expected Outcome

This study primarily demonstrates the connection between disease state and neuropathic disorder kind. Also, it shows the relationship between the type of neuropathic disease and the type of pain that is experienced, as well as the connection between drug usage neuropathic pain. Early detection and screening of co-morbid diseases may also aid in the reduction of Neuropathic pain frequency. This research can also be used to identify those who are at risk of developing neuropathic pain as a result of other medical disorder. A combination of new and improved pharmaceutical discoveries, rigorous clinical investigations, and a better understanding of neurology is thought to lead to better and more effective pain assessment solutions, as well as an enhanced quality of life. Because it comprises precise intensity of distinct forms of pain, our study can aid in future diagnosis of neuropathic pain and the selection of appropriate therapy. The sample size calculated was 70 and the number of patients enrolled in the study was 201.

Statistical Analysis

All the quantitative data was represented in percentage (%) and mean ± standard deviation. Comparative statistical differences were calculated by using appropriate parametric tests. The categorical data was represented in median and comparative statistical differences was calculated by using appropriate non-parametric statistical test (Chi-square, person's chi square test, etc.) Graphical representative was used for better understanding of data. P value of ≤ 0.05 was considered as significant.

RESULT

Total 102 patients with different types of neuropathic pain were enrolled in this study from Dhiraj general hospital. Out of 102 patients, N=45 (44.12%) patients were female, and N= 57(55.88%) patients were male.

Out of all 102 patients mean age of male patient was 46.60(±14.49) years. and mean age of

female patients was 47.42(±13.43) years. Here out of all 102 patients, the patients with age group of 46-60 years were highest N=47(46%), then patients with 31-45 years N= 24(23%), then with ≤ 30 years N=18(18%) and then with 61-75 years N= 13(13%).

Out of all patients enrolled, Patients with Radiculopathy were more (43.1%, N= 44), then peripheral neuropathy (37.3%, N = 38), then myelopathy (16.7%, N = 17), then sciatic neuropathy (2%, N = 2), then brachial plexopathy (1%, N = 1). Here it shows that from all patients enrolled patients with pain duration of 1-24 months were highest (63%), then < 1month (24%), and followed by >24 months(13%). Mean duration of pain of all patients was was found to be 8 months.

In Peripheral neuropathy patient with pain duration of 1 month to 2 year were present in 20 patients out of 38 patients. In Radiculopathy patients with pain duration of 1 month to 2 year were present in highest amount in 30 patients out of 44 patients. Here it suggested that in Radiculopathy patients with duration of pain of 1 month to 24 months is more predominantly seen.

Out of all 102 cryptogenic was highest in etiology, then others were diabetes, trauma, CKD, heavy weight lifting, alcohol intake. Electric shock, cancer, Toxic vasculitis, GBS, post-surgery pain etc. In Radiculopathy mostly dual drug therapies were prescribed in 18 patients out of 44 patients. And in peripheral neuropathy mono drug therapy is given in 17 patients out of 38 patients. In radiculopathy in 9 patients out of 44 patients 3 drugs are also prescribed in combination. Most commonly prescribed drug was pregabalin.

As shown in (Table 1), by and large mean score and standard deviation of numbness was highest 7.54(2.78), then of tingling or pins and needles was 7.48 (2.66), then of heavy pain was 6.58(2.63).

Sfmpq2 overall score:

Table 1: Score of different type of pain of SF-MPQ-2

Item	Domain	Pain type	Mean	SD
1	Neuropathic	Hot burning pain	5.27	3.92
2	Neuropathic	Cold- freezing pain	4.8	3.97
3	Neuropathic	Pain caused by light touch	2.87	2.85
4	Neuropathic	Itching	1.53	2.59
5	Neuropathic	Tingling or 'pins and needles'	7.48	2.66
6	Neuropathic	Numbness	7.54	2.78
7	Affective	Tiring-exhausting	7.28	2.36
8	Affective	Sickening	6.57	2.05
9	Affective	Fearful	6.22	2.89
10	Affective	Punishing-cruel	5.2	3.12
11	Continuous	Throbbing pain	2.71	3.37
12	Continuous	Cramping pain	1.98	3.05
13	Continuous	Gnawing pain	5.59	3.11
14	Continuous	Aching pain	6.06	2.73
15	Continuous	Heavy pain	6.58	2.63
16	Continuous	Tender	3.6	3.17
17	Intermittent	Shooting pain	5.98	3.26
18	Intermittent	stabbing pain	3.75	3.51
19	Intermittent	sharp pain	2.61	3.29
20	Intermittent	Splitting pain	0.88	2.4
21	Intermittent	Electric-shock pain	4.36	3.66
22	Intermittent	Piercing	1.46	2.75

As shown in (Table 2), Out of all patients mean score of role limitation due to physical health was 10.049 (25.674), then score of bodily pain was 32.794(17.379). here in SF-36 the 0 shows poor and 100 score means excellent effects.

SF-36 overall scores:

Table 2: Overall scoring of SF-36

Components	Mean	SD	Minimum	Maximum	Percentiles		
					25	50	75
PF	43.13	29.321	.000	100.00	22.50	36.25	70.00
PH	10.04	25.674	.000	100.00	.000	.000	.000
EP	33.33	40.350	.000	100.00	.000	.000	66.66
EF	40.00	14.351	10.000	85.00	30.00	40.00	50.00
EWB	48.15	14.116	16.000	92.00	44.00	48.00	52.00
SF	46.32	31.642	.000	100.00	25.00	37.50	75.00
Pain	32.79	17.379	.000	90.00	22.50	35.00	45.00
GH	36.66	10.033	10.000	55.00	30.00	35.00	45.00

The mean score of physical component summary (PCS) was found to be 34.30(17.54), whereas the mean score of emotional component summary (ECS) was found of 42.38(15.74). Here overall mean score physical component summary and emotional component summary is calculated.

In the patient population studied, both physical and emotional components were compromised.

According to the (Table 3.1), 70 patients out of all patients experienced hot burning pain, with patients with peripheral neuropathy making up the biggest percentage, N=35 (50%) of those patients. N=25 (71.42%) of the 35 individuals with peripheral neuropathy had diabetes as the underlying cause. And the medicine combination of Pregabalin + Nortriptyline largely controlled it. Out of all patients, 65 patients experienced cold, freezing pain, with the biggest number (N=34; 52.30%) having peripheral neuropathy. N=23 (67.64%) of the 34 individuals with peripheral neuropathy overall had diabetes as the underlying cause. Pregabalin alone and the pregabalin + nortriptyline medication combination largely controlled it. Among all patients, 57 patients had pain from light touch, with patients with peripheral neuropathy making up the biggest number (N=32; 56.14%). N=14 (or 70%) of the 20 patients with radiculopathy overall had cryptogenic origin. Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, and Pregabalin+ Tramadol were the main medications used to manage it. From the 30 patients presented with itching in total, 23 (76.66%) had peripheral neuropathy, which was the most common type. Further diabetes in peripheral neuropathy was N= 16 (69.56%), followed by cryptogenic, N=3(13.04%), and CKD, N=2(8.69%). Cryptogenic etiology was the most prevalent in radiculopathy, N=3(60%).

Table 3.1: Different type of pain according to major type of neuropathy and their etiology and major prescribed drug

Etiology, Prescribed Drug														
Pain Type		**Type of Neuropathy**	**N (%)**	**Cryptogenic**	**Trauma**	**Post- Surgery**	**Alcohol intake**	**Cancer**	**CKD**	**Diabetes**	**GBS**	**Toxic vasculitis**	**Lifting heavy weight**	**Electric shock**
Hot burning pain (70)	1	Brachial Plexopathy	1(1.42)	1(100), Pregabalin+ Tramadol										
	2	Myelopathy	9(12.85)	6(66.66), Pregabalin	2(22.22) Pregabalin	1(11.11) Pregabalin								

Cold Freezing Pain (65)					
3	2	1	5	4	3
Radiculopathy	Peripheral Neuropathy	Myelopathy	Sciatic Neuropathy	Radiculopathy	Peripheral Neuropathy
18(27.69)	34(89.48)	11(16.92)	1(1.42)	24(34.28)	35(50)
12(66.66), Gabapentin+ Nortriptyline+ Tramadol, Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, Pregabalin+ Tramadol	3(8.82), Pregabalin	9(81.81), Pregabalin, Baclofen	1(100), Pregabalin	18(75) Gabapentin+ Nortriptyline, Pregabalin+ Tramadol	30(8.571), Pregabalin + Tramadol
4(22.22), Pregabalin+ Tramadol+ Paracetamol	1(2.94), Gabapentin+ Nortriptyline	2(18.18) Pregabalin		4(16.66) Pregabalin +Tramadol+ Paracetamol	1(2.85) Pregabalin
1(5.55), Pregabalin				1(4.166) Pregabalin	
					1(2.85) Pregabalin
	2(5.88), Diclofenac+ Paracetamol				
	3(8.82), Diclofenac+ Paracetamol,				
	23(67.64) Pregabalin+ Nortriptyline,				
	1(2.94), Tramadol				1(2.85) Tramadol
					1(2.85) Pregabalin
	1(2.94), Tramadol				1(2.85) Tramadol
1(5.55) Gabapentin+ Nortriptyline				1(4.166) Gabapentin+ Nortriptyline	

Itching (30)		Pain caused by light touch (57)				
2	1	4	3	2	1	4
Peripheral Neuropathy	Myelopathy	Radiculopathy	Peripheral Neuropathy	Myelopathy	Brachial Plexopathy	Sciatic Neuropathy
23(76.66)	2(6.666)	20(35.08)	32(56.14)	4(7.017)	1(1.754)	2(3.076)
3(13.04), Pregabalin, Tramadol	2(100), Pregabalin	14(70), Gabapentin+ Nortriptyline+ Tramadol, Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, Pregabalin+ Tramadol	3(9.37), Pregabalin + Tramadol	3(75), Pregabalin	1(100. Pregabalin + Tramadol	1(50), Pregabalin
		4(20), Pregabalin+ Tramadol+ Paracetamol	1(3.12), Gabapentin+ Nortriptyline			
		1(5), Gabapentin+ Nortriptyline		1(25), Pregabalin		
			1(3.12), Pregabalin			
1(4.34), Diclofenac+ Paracetamol			2(6.25), Diclofenac+ Paracetamol			
2(8.69), Diclofenac+ Paracetamol			3(9.37), Diclofenac+ Paracetamol, Tramadol			
16(69.56), Pregabalin, Nortriptyline			21(65.62), Pregabalin+ Nortriptyline,			
1(4.34), Tramadol			1(3.12), Tramadol			
						1(50), Pregabalin
		1(5), Pregabalin				

	3	Radiculopathy	5(16.66)	3(60), Gabapentin+ Nortriptyline+ Tramadol, Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, Pregabalin+ Tramadol	1(20), Pregabalin+ Tramadol+ Paracetamol									1(20), Gabapentin+ Nortriptyline

According to the (Table 3.2), Out of the 94 patients with tingling and pins and needle sensation, 39 (41.48%) had radiculopathy, the most common cause of tingling or pins & needles. Trauma N=6(15.38%) followed by N=30(76.92%) in that cryptogenic. Pregabalin, Gabapentin, Pregabalin+ Aceclofenac, Pregabalin+ Tramadol combos, and Gabapentin+ Nortriptyline+ Tramadol, respectively, were able to control both. Out of all Numbness was present in 96 patients and which is mostly seen in radiculopathy N= 39(40.62%). In that cryptogenic was most common etiology and after that trauma and post-surgery. And other values are also calculated accordingly.

Table 3.2: Different type of pain according to major type of neuropathy and their etiology and major prescribed drug

		Etiology, Prescribed Drug												
Pain Type		**Type of Neuropathy**	**N (%)**	**Cryptogenic**	**Trauma**	**Post- Surgery**	**Alcohol intake**	**Cancer**	**CKD**	**Diabetes**	**GBS**	**Toxic vasculitis**	**Lifting heavy weight**	**Electric shock**
Tingling or 'pins and needles' (94)	1	Brachial Plexopathy	1(1.06)	1(100), Pregabalin + Tramadol										
	2	Myelopathy	16(17.02)	10(62.5), Pregabalin	5(31.25), Pregabalin	1(6.25), Pregabalin								
	3	Peripheral Neuropathy	37(39.36)	3(8.10), Pregabalin, Tramadol	1(2.70), Gabapentin+ Nortriptyline		1(2.70), Pregabalin	2(5.40), Diclofenac+ Paracetamol	3(8.10), Diclofenac+ Paracetamol	24(64.86), Pregabalin, Nortriptyline	1(2.70), Tramadol	1(2.70), Pregabalin	1(2.70), Tramadol	

Numbness (96)						
5	4	3	2	1	5	4
Sciatic Neuropathy	Radiculopathy	Peripheral Neuropathy	Myelopathy	Brachial Plexopathy	Sciatic Neuropathy	Radiculopathy
2(2.08)	39(40.62)	37(38.54)	17(17.70)	1(1.04)	1(1.06)	39(41.48)
1(50), Pregabalin	30(76.92), Gabapentin+ Nortriptyline+ Tramadol, Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, Pregabalin+ Tramadol	3(8.108), Pregabalin, Tramadol	11(64.70), Pregabalin	1(100), Pregabalin, Tramadol	1(100), Pregabalin	30(76.92), Gabapentin+ Nortriptyline+ Tramadol, Pregabalin, Pregabalin+ Gabapentin+ Aceclofenac, Pregabalin+ Tramadol
	6(15.38), Pregabalin+ Tramadol+ Paracetamol	1(2.70), Gabapentin+ Nortriptyline	5(29.41), Pregabalin			6(15.38), Pregabalin+ Tramadol+ Paracetamol
	2(5.12), Pregabalin		1(5.88), Pregabalin			2(5.12), Pregabalin
		1(2.70), Pregabalin				
		2(5.40), Diclofenac+ Paracetamol				
		3(8.108), Diclofenac+ Paracetamol				
		24(64.86), Pregabalin, Nortriptyline				
		1(2.70), Tramadol				
		1(2.70), Pregabalin				
1(50), Pregabalin		1(2.70), Tramadol				
	1(2.56), Gabapentin+ Nortriptyline					1(2.56), Gabapentin+ Nortriptyline

From (Table 4), there was a statistically significant difference in pain between the different type of neuropathy, $\chi^2 = 11.21$, p =0.024, with a mean rank pain score of 79.50 for brachial plexopathy, 32.74 for myelopathy, 59.50 for peripheral neuropathy, 51.86 for radiculopathy, 37.00 for sciatic neuropathy. So, hear it shows that bodily pain is mostly seen highest in brachial plexopathy, myelopathy and peripheral neuropathy than sciatic neuropathy.

SF 36 with Major type of neuropathy:

Table 4: Scoring of components of SF 36 with major type of neuropathy

Components	Type of Neuropathy	N	Mean Rank	chi-square	P value
Physical Functional	Brachial Plexopathy	1	63.00	14.36	0.006
	Myelopathy	17	28.53		
	Peripheral Neuropathy	38	51.14		
	Radiculopathy	44	59.76		
	Sciatic Neuropathy	2	66.00		
	Total	102			
Role limitation due to physical health	Brachial Plexopathy	1	42.50	1.28	0.864
	Myelopathy	17	48.88		
	Peripheral Neuropathy	38	51.34		
	Radiculopathy	44	53.26		
	Sciatic Neuropathy	2	42.50		
	Total	102			
Role limitation due to emotional health	Brachial Plexopathy	1	84.00	6.44	0.168
	Myelopathy	17	39.62		
	Peripheral Neuropathy	38	49.75		
	Radiculopathy	44	57.07		
	Sciatic Neuropathy	2	47.00		
	Total	102			
Energy/Fatigue	Brachial Plexopathy	1	95.50	2.69	0.611
	Myelopathy	17	54.09		
	Peripheral Neuropathy	38	49.49		
	Radiculopathy	44	50.91		
	Sciatic Neuropathy	2	58.75		
	Total	102			
Emotional well being	Brachial Plexopathy	1	34.00	7.54	0.11
	Myelopathy	17	43.18		
	Peripheral Neuropathy	38	59.89		
	Radiculopathy	44	46.70		
	Sciatic Neuropathy	2	77.00		
	Total	102			
Social Functioning	Brachial Plexopathy	1	78.50	6.88	0.142
	Myelopathy	17	36.03		
	Peripheral Neuropathy	38	52.03		
	Radiculopathy	44	55.89		
	Sciatic Neuropathy	2	63.00		
	Total	102			
Pain	Brachial Plexopathy	1	79.50	11.21	0.024
	Myelopathy	17	32.74		
	Peripheral Neuropathy	38	59.50		
	Radiculopathy	44	51.86		
	Sciatic Neuropathy	2	37.00		
	Total	102			
General Health	Brachial Plexopathy	1	64.00	17.36	0.002
	Myelopathy	17	54.26		
	Peripheral Neuropathy	38	37.43		
	Radiculopathy	44	63.28		
	Sciatic Neuropathy	2	29.75		
	Total	102			

DISCUSSION

Neuropathic pain (NP) is among the most common types of chronic pain. Patients with neuropathic pain are older, and their pain is more severe and frequent than patients with other types of pain.

In present study Out of 102 patients 44.12% patients were female, and 55.88% patients were male. This indicates that men were the ones who were most affected. In study conducted by B. Gustorff *et al*., 2007 concluded that out of all 260 patients suffering from neuropathic pain 59% patients were male and 41% patients were female [11].

In current study the mean age of all patients were 46 years. In male patients out of 57 patients mean age was 46.60 years and in female patients mean age was 47.42 years. In study conducted by Resende, Nascimento, Rios *et al*., 2010 the mean age of patients were 51 years. It can be suggested that the increased frequency of NP associated with patient lifespan, particularly in terms of the possibility of comorbidities such as diabetes or other metabolic disorders. Advanced age is listed as risk factors for chronic pain in studies [12].

In our study the duration of pain ranged from <1 month to >24 months. And the duration of pain was highest in 1 month to 24 months (63%), then < 1month (24%), and follwed by >24 months (13%) here in our study mean duration of pain was found to be 8 months. A study conducted by Pe´rez *et al*., 2009, found the mean duration of pain was 10.4 months in neuropathic pain [13].

In the current study out of 102 patients 48 patients was having cryptogenic etiology. Among them most patients were of radiculopathy and myelopathy. Then 24 patients were having diabetes as their etiology, who all were suffering from peripheral neuropathy. And 15 patients were having neuropathy caused by trauma, and 3 patients were having chronic kidney disease (CKD). In above mentioned study conducted by Resende, Nascimento, Rios *et al*., 2010, the type of according to their etiology, Neuropathies secondary to metabolic disorders were 11 (34%), Infectious neuropathies 7 (21%), Idiopathic neuropathies 3 (9%), Toxic neuropathies 2 (6%), Trauma-related neuropathies 2 (6%), Neuropathies due to degeneration of the spine 2 (6%) [12]. From comparison of both studies it was found that metabolic disorders like diabetes and CKD and hypothyroidism, idiopathic, trauma related, toxic neuropathies like toxic vasculitis, alcoholic neuropathies are the most common cause of neuropathies nowadays. The following factors may contribute to metabolic neuropathy, difficulty in the body's ability to use energy, which is frequently caused by a shortage of nutrients (nutritional deficiency). Toxins are harmful compounds that accumulate in the body. Narrowing of the space where nerve roots exit the spine, which can be caused by stenosis, disc herniation, or other disorders, such as trauma, surgery, or electric shock, is a common cause of radiculopathy.

Here out of 102 patients 55 patients were prescribed with 1 drug, 38 patients were prescribed with 2 drug and 9 patients were prescribed with 3 drugs. The study conducted by Luis Enrique Chaparro *et al*., in 2017, stated that out of all patients total 45% of patients were prescribed with dual drug therapy [14].

In our study mean of affective pain was found to be 6.32(1.93), of neuropathic pain was 4.91(1.95), of continuous pain was 4.42(1.47), and of intermittent pain was found to be 3,17(1.69). It implies that in overall patients neuropathic and affective pain was seen more predominantly. A study conducted by Kachooei, *et al*., 2014 found that in patients with osteoarthritis mean score of subscales of SF-MPQ-2 was found to be 4.7±2.4 for Continuous pain, 5.8±2.8 for Affective pain, 4.3±2.3 for intermittent pain, and 4.0±2.4 for neuropathic pain [15].

Among all 22 pain descriptors mean score and standard deviation of numbness was highest 7.54(2.78), then of tingling or pins and needles was 7.48 (2.66), then of heavy pain was 6.58(2.63).

In our study we observed that among all neuropathic pain Numbness and tingling or pins and needles are highest in all patients, N= 96, N=94 accordingly. A study conducted by M Soler *et al*., 2016 showed that Pins and needles were the most prevalent pain symptom, followed by burning pain [16]. By comparing both studies it can be found that numbness, tingling and hot burning are the most common symptoms of neuropathic pain. According to the data, hot burning pain was present in 70 of the patients, with peripheral neuropathy being the most common 50 %. Diabetes was the cause of peripheral neuropathy in 25 of the 35 individuals, 71.42 %. And it was primarily controlled by the pharmacological combination of Pregabalin and Nortriptyline.

In a study conducted by Dermanovic Dobrota *et al.,* 2014 concluded that in painful neuropathies mean of physical function was 28.0 (21.2), then role limitation due to physical health was 13.4 (30.0), then role limitation due to emotional problems was 43.3 (46.7), then bodily pain was 30.8 (18.0), social functioning was 53.3 (27.5), then emotional well-being was 52.9 (20.7), then fatigue was 39.9 (17.9), and general health was 28.5 (17.8). BY comparing

both the studies it implies that Major types of neuropathies necessitate extra effort in terms of time and energy required for treatment, as well as a financial strain on the subject's resources due to medications and further medical care. These aspects, which are primarily induced by painful symptoms, might have a negative impact on overall quality of life [17].

By calculating physical component summary and emotional component summary mean score was found to be 34.30(17.54), and 42.38 (15.74). As a result, it was discovered that patient's physical functioning was limited more rather than their mental functioning. In individuals with various types of neuropathies, impairments in lower or upper limb muscles limit functional ability and contribute to altered gait, increased fall risk, and reduced balance. In a study conducted by Meyer-Rosberg *et al*., 2001 the mean summary score for the physical health component was 33.2 (SD,8.2), and 45.6 (SD,12.0) for the mental health component [18]. People do not do labour that consumes a lot of energy, resulting in physical limitations. This is the primary factor influencing patients' quality of life.

In our study physical function was highly impacted in myelopathy, peripheral neuropathy and then followed by radiculopathy with mean rank 28.53, 51.14 and 59.76 respectively. It also showed significant p value of 0.006 of Bodily pain was also highly affected in myelopathy, peripheral neuropathy and sciatic neuropathy with mean rank of 32.74, 37.00, 51.86 and it was suggestive of significant p value of 0.024 here patient's general health also shows significant decrease in peripheral neuropathy and sciatic neuropathy with mean rank of 37.43, 29.75 respectively. Many factors of daily life degrade emotional, physical, and social well-being, lowering life quality. Good health can be achieved by properly counselling patients, reducing severity, and taking care of the body with whichever way possible.

CONCLUSION

Our research is a significant contribution to the understanding of neuropathic pain's clinical manifestations. As a result of the study, we can say that men are more likely than women to experience neuropathic pain. The age group of 45 to 60 years old had the highest levels of pain. Radiculopathy was the most frequent type of neuropathy observed, followed by peripheral neuropathy, myelopathy, sciatic neuropathy, and brachial plexopathy. The discomfort in the radiculopathy lasted the longest for 1-2 months. Cryptogenic causes were the primary cause of radiculopathy, and diabetes was found to be a contributing factor to peripheral neuropathy. Drugs are typically provided as single, dual, or triple therapies for neuropathic pain, with combination therapies being more frequently prescribed for radiculopathy and single therapies for peripheral neuropathy. In this study, pregabalin was the drug that was most frequently prescribed. The most frequently suggested drug combination was gabapentin and nortriptyline. The severity and kind of pain were assessed using the SF-MPQ-2 scale. The most severe pain, as well as the most numbness and tingling, was found in peripheral neuropathy, the results show. In some circumstances, a particular kind of neuropathy results in lessened discomfort. According to the results of SF-36 questionnaire, radiculopathy causes a loss of physical function. The mean score of all categories was discovered, indicating that brachial plexopathy and radiculopathy had the most substantial impact on the patient's overall health. In inter-scale correlation, all eight domains were related to one another. The SF-36 domains are all favourably connected. This explains how an increase in one domain's scoring improves the scoring of another domain if they are positively intercorrelated, but if they are negatively intercorrelated, an increase in one domain's scoring decreases the scoring of another domain. The emotional function of patients was better than physical function. Educating the patient, using proper medication, avoiding habits, improving physical limitation and mental health is a key role to improve quality of life.

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