A PROSPECTIVE STUDY ON QUALITY OF LIFE IN PATIENTS WITH ARTHRITIS

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ABSTRACT

Objective: Patient counseling can scientifically improve the physical and mental symptoms of certain diseases that could be a relief to the patient. Non-pharmacological approaches could be an alternative to the drug therapy. Health issues affecting the quality of life (QoL) are to be studied to understand the patient's physical, mental, emotional, and social functioning.

Methods: The present study involves prospective analysis of QoL in men and women with arthritis. The methodology involves the collection and documentation of general information of the patient including personal history, family background, clinical findings, investigations, and medical illness associated with arthritis. Further, the QoL is documented using a specific questionnaire designed to assess the impact of arthritis and their complications.

Results: It can be seen that there is no significant changes in the physical and mental component score (MCS) in between the type of arthritis, but there is an extremely significant ($p < 0.05$) values were obtained when compared between pre- and post-counseling phases of physical and MCS.

Conclusion: Patients counseling plays a major role in the management of signs and symptoms among patients with arthritis. The non-pharmacological method is also be used for the management of arthritis.

Keywords: Quality of life, Arthritis, Patient counseling, Questionnaire, Physical component score, Mental component score.

INTRODUCTION

Arthritis is a type of joint disorder which usually causes the inflammation in the joints [1]. The common types of arthritis include osteoarthritis (OA), rheumatoid arthritis (RA), septic arthritis (SA), and gouty arthritis [2]. Pain is the most important physical problem that is common with most people with arthritis [3]. OA is characterized by articular cartilage loss and hypertrophy of bone muscle [4]. RA is an inflammatory disease with the involvement of synovial joints [5]. The mental complications include depression and mood swings; these could lead to long-term depression, social anxiety disorder, etc. [6].

Counseling can improve patients' physical and mental symptoms that could be a relief to the patient [7]. Non-pharmacological approaches such as effective patient counseling could be a support for the drug therapy to improve the condition of the patients [8].

Health issues related quality of life (QoL) is studied to understand the physical, mental, emotional, and social functioning of patients. Arthritis is a chronic disease, and hence, monitoring the QoL would enable us to improve the patient perspective.

Maria *et al.* conducted a study on "assessing the functional status and QoL of patients with RA" and concluded that in the present study, it is patent the huge burden of RA on function and QoL of patients, generating a high level of unemployment. We stress the importance of the symptomatic control, especially pain. The assessment of the degree of functional impact by physicians and patients do not coincide, indicating the need of the evaluation of the treatment by the patient to improve results. We suggest that an aggressive and global focus on the patient should be from the onset of the disease on to help improve the vital and functional prognosis of our patients [9].

Whalley *et al.* conducted a study on "QoL in RA" and conducted. The measure is designed to provide valid and reliable information on QoL in RA patients and how this is influenced by interventions. The measure will not allow comparisons between different diseases or lend itself to inclusion in pharmacoeconomic analyses at present. There is growing evidence that health utility and psychometric health status scales measure different aspects of health outcome [10].

The main aim of the study was to assess the QoL in patients with arthritis. The extent of impairment of health related QoL in patients with arthritis will be evaluated using the score obtained from a scientifically designed questionnaire.

MATERIALS AND METHODS

Materials
The study was carried out in a tertiary care hospital:
- Study period: 9 months
- Study Instrument: SF-12 questionnaire.

Inclusion criteria
i. In-patients diagnosed with arthritis
ii. Willing to participate in completing the simple questionnaire
iii. Patients of age >20 years.

Exclusion criteria
i. Patients of age above <20 years
ii. Patients with psychiatry complications
iii. Studies in those with previous traumas.

Methods
Study design
This method involves prospective analysis of QoL in men and women with arthritis. The study is carried out by the collection and documentation of general information of the patient including personal history, family background, clinical findings, investigations, and medical

illness associated with arthritis. Further, QoL is documented using a specific questionnaire designed to assess the impact of arthritis and their complications. They are as follows.

Study instrument

SF-12 questionnaire
The SF-12® Health Survey includes 12 questions from the SF-36® Health Survey (Version 1). These include: 2 questions concerning physical functioning; 2 questions on role limitations because of physical health problems; 1 question on bodily pain; 1 question on general health perceptions; 1 question on vitality (energy/fatigue); 1 question on social functioning; 2 questions on role limitations because of emotional problems; 2 questions on general mental health (psychological distress and psychological well-being).

Finally, the documented questionnaire is evaluated for the outcome.

The study was conducted after obtaining informed consent from the patient. This study was approved by the Institutional Ethics Committee IEC/DOPV/2015/08.

RESULTS

The following results were obtained when the data were collected from the patient.

Table 1 shows that out of selected 150 patient data, 68 patients (45%) were male, and 82 patients (55%) were female. In this study, it indicates that more number of females are affected with arthritis when compare to male.

Table 2 shows that out of selected 150 patients data, 4 patients (3%) were in the age group of 20-30 years, 14 patients (9%) were in the age group of 31-45 years, 32 patients (21%) were in the age group of 46-60 years, 52 patients (64%) were in the age group of 61-75 years, and 48 patients (32%) were in the age group of >76 years; it indicates that the more number of people above 60 years are affected with arthritis when compared to other groups.

Table 3 shows that out of selected 150 patients, 64 patients (43%) were suffering from OA (knee), 12 patients (8%) were suffering from OA (hip), 33 patients (22%) were suffering from RA, 15 patients (10%) were suffering from SA, and 26 patients (17%) were suffering from gout arthritis; it indicates that more OA is the most common form of arthritis.

Table 4 shows that out of selected 150 patients, 72 patients (48%) were having HTN, 94 patients (63%) were having diabetes mellitus, 12 patients (8%) were having BA, 4 patients (3%) were having renal failure, 16 patients (11%) were having hypothyroidism, and 20 patients (13%) with no comorbidities; It indicates that diabetes is the most common among the comorbidities in arthritis.

A larger population of the patients (41%) had been reported to suffer with the complication for the duration of 2-5 years, and this indicates that arthritis is chronic disease. The details of the duration for which patients were suffering are given in Table 5.

Table 6 indicates that there are no significant changes in the physical and mental component score (MCS) in between the type of arthritis, but there is an extremely significant ($p<0.05$) values were obtained when compared between pre and post-counseling phases of the physical component score (PCS) and MCS.

Table 7 shows that there are significant changes in PCS in male and MCS in female.

DISCUSSION

Understanding the nature of RA and coping up with challenges of this condition can be done with the help of good education and counseling.

Table 1: Gender distribution

Serial number	Gender	Number of patients (n=150) (%)
1	Male	68 (45)
2	Female	82 (55)

Table 2: Age distribution

Serial number	Age	Number of patients (n=150) (%)
1	20-30	04 (3)
2	31-45	14 (9)
3	46-60	32 (21)
4	61-75	52 (34)
5	>76	48 (32)

Table 3: Prevalence of various types of arthritis in the study group

Serial number	Arthritis type	Number of patients (n=150) (%)
1	Osteoarthritis (Knee)	64 (43)
2	Osteoarthritis (Hip)	12 (8)
3	Rheumatoid arthritis	33 (22)
4	Septic arthritis	15 (10)
5	Gouty arthritis	26 (17)

Table 4: Reported comorbidities in arthritis patients

Serial number	Comorbidities	Number of patients (%)
1	HTN	72 (48)
2	DM	94 (63)
3	BA	12 (8)
4	Renal failure	4 (3)
5	Hypothyroidism	16 (11)
6	No comorbidities	20 (13)

BA: Bronchial asthma, DM: Diabetes mellitus, HTN: Hypertensions

Table 5: Duration of arthritis in the study group

Serial number	Year	Number of patients (%)
1	<2	37 (25)
2	2-5	61 (41)
3	6-9	39 (26)
4	10 and above	13 (9)

The patient along with the health-care providers can work together to formulate a therapeutic plan and evaluate both the standard and alternative treatment options.

Certain measures such as biofeedback and cognitive therapy may help in controlling RA symptoms. Both the measures can help in improving one's self-esteem as well as the pain and disability. Some hospitals, clinics, and certain arthritis based organizations are offering programs on topics such as self-management skills, social support, and psychotherapy, which have been shown to reduce pain, depression, and disability in people suffering from arthritis and have also helped them to gain some control over their illness [11].

The results, in the above study, have shown that there are more female patients than male patients; similar results were seen on a study done by Bajraktari *et al.* [12].

As inferred from the current study, most of arthritis patients are above 60 years of age, and similar results were found on a study done by Pawlowska *et al.* [13].

Table 6: PCS and MCS in pre- and post-counseling of patients

Serial number	Parameters	OA	RA	SA	Gout	p
	PCS					
1	Pre	30.5±2.20	41.32±1.36	31.5±2.64	37.9±4.12	0.0987
2	Post	40.2±1.19	51.3±1.8	56.3±1.56	59.3±2.23	0.0876
3	p	0.0032*	0.0029*	<0.0001*	0.0216*	
	MCS					
1	Pre	29.62±2.20	38.17±2.20	33.10±1.20	31.40±1.92	0.0589
2	Post	39.3±2.21	50.1±1.24	46.1±2.25	53.1±1.21	0.0516
3	p	0.0021*	0.0036*	0.0007*	0.0029*	

*Indicates that the values are statistical significance. MCS: Mental component score, PCS: Physical component score. OA: Osteoarthritis, RA: Rheumatoid arthritis, SA: Septic arthritis

Table 7: Gender-wise impact-MCS and PCS in arthritis patient group

Serial number	Gender	PCS			MCS		
		Before	After	p	Before	After	p
1	Male	47.2±3.27	54.3±3.17	0.0049*	39.2±1.7	44.2±1.11	0.0814
2	Female	41.3±2.21	44.3±3.14	0.0897	34.2±4.27	41.66±3.19	0.0348*

MCS: Mental component score, PCS: Physical component score

OA is the most common form of arthritis, as concluded by my study was similar to the results shown by Breedveld [14].

This study shows that diabetes is the most common comorbidities in arthritis; these results were similar with the results reported by Dougados *et al.* [15].

It can be seen that there are no significant changes in the physical and MCS in between the types of arthritis, but the comparison of physical and MCS between pre- and post- counseling phases indicated significant (p <0.05) differences with various types of arthritis.

This study shows that there are significant differences in PCS in male and MCS in female.

CONCULSION

Patients counseling plays a major role in the management of signs and symptoms among patients with arthritis. The non-pharmacological method is also be used for the management of arthritis. We recommend for further research in the patient-oriented factors in managing arthritis.

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