A Study to Evaluate the Effectiveness of Knowledge Regarding Self-Care in Patient of *Janu-Sandhigata Vata* w.s.r to Osteoarthrosis- Primary Care Base Structured Teaching Program

Ravi Kumar[1] , Reetu Sharma[2],B.K.Sevatker[3],

1.Assistant professor, Deptt. Roga Nidan Evam Vikriti Vigyan, Ayu Jyoti Ayurveda collage and hospital, Sirsa.
2.Associate professor , Deptt. Roga Nidan Evam Vikriti Vigyan, National institute of Ayurveda, Jaipur.
3.Associate professor, Deptt. Roga Nidan Evam Vikriti Vigyan, National institute of Ayurveda, Jaipur

Article Info

ABSTRACT:

Background –Knowledge about any disease is the best way of prevention of any disease. *Janu sandhigta vata* is the disease that occurs in old age. If we have knowledge about *Janu Sandhigata vata* before ongoing through the disease we have prevent this disease. So a study to evaluate the effectiveness of knowledge of self care activities in patients of *Janu Sandhigata vata* on out patients of National institute of Ayurveda, Jaipur.

Objectives – 1. To develop and administer structured teaching program and access the knowledge of selfcare in knee Osteoarthrosis.2. To evaluate the effectiveness of Structured Teaching Program regarding selfcare among *janusandhigata vata* w.s.r. to Osteoarthrosis patients by comparing pre and post test knowledge score

Method – Sample size is 150 of *Janu Sandigata Vata* who visit the OPD of NIA, Jaipur with random sampling technique. Tool comprised of knowledge questionnaire and 3point rating i.e., inadequate, moderate, adequate knowledge.

Results- In pre test adequate knowledge is 0% moderate knowledge is 34% and adequate knowledge is 66% and on post testing adequate knowledge is 94% and moderate knowledge is 6% while inadequate knowledge is 0%. The mean value of pre score is 9.973 and post score is 22.159 with mean difference is 12. 186.In paired t-test, p value is < 0.0001 suggest Extremely significant for Structured teaching programme for *Janusandhigata Vata*.

Conclusion: - As *Janu-sandhigata Vata* is a *Krichasadhya vyadhi*, so the better option is to prevent the disease by selfcare management, Structured Teaching Program is a better approach towards the understanding of the disease and its management. Above results findings suggest that the after STP program knowledge of patient is significantly increases. Hence it suggests that, STP program is useful in increasing the knowledge of patient regarding disease.

Key words; - *Janu-sandhigata Vata* , Selfcare , Structured teaching program

INTRODUCTION

According to Ayurveda, *Vata* is responsible for nearly all diseases *Sandhigata Vata* is one of them at the top of the list. *Acharya Charaka* was first to describe the disease called "*Sandhigataanila* [1] with the symptoms like

Prasarana akunchan pravriti Savedna (Pain in joints during flexion & extension),*Sandhishotha* (Swelling over joints),*vatapurnadritisaparsha (like air filled cavity)* .Osteoarthrosis[2] is a disorder of synovial joint characterized by cartilage degeneration with secondary change in the adjacent bone , osteoarthrosis is probably not a single disease , but rather a common response to a variety of metabolic , anatomical ,and physiological conditions. It is the second most frequent joint disorder with a prevalence of 22 to 39 percent in India and the most common rheumatological problem in India[3] Almost 45% of women over age 65 suffer from these symptoms while 70 % have radiological symptoms .As it is associated with locomotory system so patient cannot do their daily activity , Although no cure exists, proper treatment can greatly alleviate symptoms and improve their function Lifestyle changes are necessary to prevent the onset of Osteoarthrosis [4] In Ayurveda science , Acharya Charka describe it in of *Madhyama Rogamaga and these rogas are KricchaSadhya[5]* So in the present era , when all person live with a stressful life so disease incidence is increase so for healthy living the prevention of disease is very important and for disease prevention the knowledge about all aspect of the disease is very important .In this topic "Structured teaching program" we will define all the aspect about the disease for the self care of the patient specially during elderly life so the prevent and manage their problem by selfcare.

AIMS AND OBJECTIVES

1.To develop and administer structured teaching programme and access the knowledge of selfcare in knee Osteoarthrosis.

2.To evaluate the effectiveness of Structured Teaching Programme regarding selfcare among *janusandhigata vata* w.s.r. to Osteoarthrosis patients by comparing pre and post test knowledge score.

MATERIAL AND METHODS

- **Structured** - organized so that the parts relate well to each other[6]

- **Teaching[7-]** is the process of attending to people's needs, experiences and feelings, and intervening so that they learn particular things, and go beyond the given.

- **Program** - arrange according to a plan or schedule

- **Structured Teaching Programme in health system** –is a

systematically organized instruction developed to help the people to learn about health measures or access their knowledge about the health or disease state.

- The major points in this program is knowledge about the disease and their differential diagnosis , joint protection measures , use of assistive device, exercise, yoga , Pathya – Apathya and their treatment protocol **.**

- *Janu Sandhigata Vata[8]*:- Due to vitiation of *Vata dosha* , pain in knee joint with difficulty in movement and swelling in joint.

- **Osteoarthrosis[9]**:- Osteoarthrosis is a non-inflammatory joint disease characterized by degeneration of the articular cartilage , hypertrophy of bone margin .and change in synovial membrane.

Preparation of questionnaire

To fulfill the aims and objectives of the study and also parameters of the study a questionnaire will be made with 25 questions that will be according to language of the patient that understood easily by the patient and access the pre and post score of their knowledge to evaluate the effectiveness of the programme .There are two questionnaire for assessment pre and post knowledge score with same questions .The questions are mentioned in Table 1. After the assessment for prescore a chart was given to the patient and then after the 30 day he/she followed the lifestyle and other measures of the STP and then post score was accessed**.**

OBSERVATION & RESULT

Various observations which were made during this survey study are presented here in tabular forms as:

1. **Preliminary Data Of Patients: (Table 2)** In the present survey study table shows, maximum numbers of patients i.e. 30.66% belonged to the age group of 61-70 years followed by age group of 41-50 and 51-60 years which was 22.67% and 20% of patients were from age group of 31-40 years. In the present survey study table shows, maximum i.e. 56 patients were female here as only 44% were males.(Table 3)

Nidanatamak **Observation**

Aharaja Nidan

Dadhi sevana was found in 80 patients, *Sheeta Ahara* in 64 patients*, Alpa Ahara* in 45 patients*, Virudha Ahara in 36 patients, Ajerna/Adhyashana* in 34 patients*, Matsya*

Sevana in 25 patients*, Ati Lavana Sevana in 29 patients, Laghu Ahara Sevana* in 21 patients while *Ruksha Ahara Sevana* was found in 40 patients as the *Aharaja Nidana.Over* indulgence in Ati *Rukshahara, Atialpahara etc.,Aharaja Nidana cause Agnivaisamya* which makes to prone for *Vatavyadhi.*

Viharaja Nidana

Vega Sandharana was found in 60 patients, *Divasvapna* in 30 Ati *Bhojanottar Vyayam* in 22 and *Atapa Sevana* in 20 patients. These *nidanas* played a significant part in worsening of *Vata Dosha* and cause *Janu- sandhigata vata*. *Divasvapna* increases *Kapha* and *Meda* which leads to weight gain and *Agnivaishamya* which is a common risk factor for *Janu- sandhigata Vata*.

5. Data of Structured Teaching Programme

In structure interview schedule, each questions has one best answer with other 2 responses are 0. For best answer a score of 1was given and wrong answer 0 was given. The maximum score of structured interview schedule was 25.

The percentage is calculated by using the formula as follows.

- Total Score :- obtain score / total score multiply by 100

Based on information data were classified as follows-

- Less than or equal to 50% - Inadequate knowledge about Osteoarthrosis.

- 51-75% - Moderately adequate knowledge about Osteoarthrosis.

- >75% - Adequate knowledge about Osteoarthrosis
Table no 4. Percentage wise score of pre and post value of structure teaching program Table no 5. Parameters of Structured Teaching Program (Pre And Post Score Value)

The mean value of pre score is 9.973 and post score is 22.159 with mean difference is 12.186 , standard deviation for pre score is 3.907 and post score is 2.318, t- value is 32.768 with degree of freedom 298 , p value is < 0.0001 suggest extremely significant for structured teaching program for *janu-sandhigata vata* , their preventive measure and treatment plan. Hence it suggests that STP for *Janu Sandhigata vata* is very useful

DISCUSSION ON THE OBSERVATION

The study was undertaken to evaluate the effectiveness of structured teaching program and access their knowledge regarding the disease. The main objective of the study to evaluate the effectiveness of structured teaching program in patient of *Janu Sandhigata vata* WSR to Osteoarthrosis. This study is done on 150 patient of national institute of *Ayurveda* , Jaipur with simple random sampling(initially survey on 200 subjects was planned but due to pandemic COVID- 19 and lockdown ,150 patients could be analyzed). On first day a questionnaire of 25 question was given to patient to assess the pre score then a Structured teaching program knowledge chart was given to the patient and on 15th day re-assessment of their knowledge regarding the disease was done. The first objective was to develop and administer structured teaching programme and assess the knowledge of self care in knee Osteoarthrosis. The assessment of knowledge was carried out in OPD and IPD patients of National Institute of *Ayurveda*, Jaipur. People who met inclusion criteria were selected and each of them assessed for demographic variables and questionnaire was administered. Data analysis showed that among 150 patient, no patient had adequate knowledge about the disease, 34% patient had moderate knowledge and 66 % patient had inadequate knowledge about the disease. It reveals that peoples need educational programme about the *Janu Sandhigata vata* , their preventive measure and treatment plan. The second objective was to evaluate the effectiveness of Structured Teaching Programme regarding self care among *janu sandhigata vata* w.s.r. to Osteoarthrosis patients by comparing pre and post test knowledge score.After assessment of knowledge a STP knowledge chart was given to patient and questionnaire was re-administered. Post score data analyzed showed that 94% of patient have adequate knowledge, 6 % of patient have moderate knowledge and 0% of patient have inadequate knowledge

CONCLUSION

As *Acharya Charka* describe that *Madhyam Marga rogas* are *Krichasandhya* i.e difficult to treat and *Janu-sandhigata Vata* is a *Madhya marga roga* and also according to modern aspect Osteoarthrosis is better cured by prevention .So on these basis Preventive methods is a good option to cure the disease and Structured teaching program follow that basis. By gainingknowledge of the all aspect of the disease through Structured teaching program a patient can manage the disease by self-care. This program full fill the all aspect of disease so it can work on primary care basis program.

ORCID
Ravi Kumar ,https://orcid.org/
0000-0001-7150-8977

REFERENCE

1. Tripathi B,Charaka Samhita with Charak Chandrika-hindi commentary, vol-2. Chikitsa sthana, 28/37 Chaukhambha Orientalia , 2008.
2. Atkinson m. h./ osteoarthrosis /CAN. FAM. PHYSICIAN/Vol. 30/ JULY 1984
3. Symmons D, Mathers C, Pfleger B. Global Burden of Osteoarthritis in year 2000: Global burden of disease 2000 study. World health report. 2002;5 Version 2
4. Manek N. Medical Management of Osteoarthritis. Mayo Clin Proc 2001; 76: 533-539
5. Tripathi B, Charaka Samhita with Charak Chandrika-hindi commentary, vol-1, Sutra sthana 11/4. Chaukhambha Orientalia 2008.
6. https://dictionary.cambridge.org/dictionary/english/structured
7. https://infed.org/mobi/what-is-teaching/
8. Sharma AK , Kayachikitsa, Part 3,Snadhivata, Chaukhmbha Orientalia (Sanasktit/Hindi)2014.pp. 57
9. Hppt//www.veterans.gc.ca/osteoarthrosis

Table No. 1 :Questionaire

Q. no	Pre and post knowledge assessment question	Yes =1	No=0
1	Do you have any knowledge about Janusandhigata vata		
2	Do you have any knowledge about Osteoarthrosis.		
3	Do you know the difference between Osteoarthrosis, Rheumatoid arthritis and gout		
4	Do you know that in which age Osteoarthrosis commanly occurs.		
5.	Do you know that what are the main causes of Osteoarthrosis.		
6.	Do you know that what are the main clinical features of Osteoarthrosis.		
7.	DO you know that whats are the lab investigations for daignosis of Osteoarthrosis.		
8.	Do you know that what are the physical tests for daignosis of Osteoarthrosis.		
9.	Do you know that what are the basic treatment guidelines for the Osteoarthrosis.		
10.	Do you know that which diet plan is good in Osteoarthrosis.		
11.	Do you know that which diet is avoid in Osteoarthrosis.		
12.	Do you have any knowledge about joint protection measure for Osteoarthrosis.		
13.	Do you know that braces are useful for Osteoarthrosis		
14.	Do you know that which sitting and bending positions are good for Osteoarthrosis.		
15.	Do you know that hand sticks are helpful to overcome the symptoms of Osteoarthrosis.		
16.	Have you heared about the walker use in Osteoarthrosis.		
17.	Do you have any knowledge about the use of Grab Bars during sitting and standing.		
18.	Do you know Ayurveda Medication are useful in Osteoarthrosis .		
19.	Do you have any knowledge about the Ayurveda procedures like Janu basti orJjanu dhara Is useful in Osteoarthrosis.		
20.	Do you have any knowledge about success role of Ayurveda procedure in Osteoarthrosis.		
21.	Do you know that hot and cold application procedure is useful in Osteoarthrosis.		
22.	Do you know what is the right sequence for hot and cold application in Osteoarthrosis.		
23	Do you know about the exercises which are beneficial for Osteoarthrosis.		
24	Do you know about the Yogas which are beneficial for Osteoarthrosis.		
25	Do you know any home remedies that are useful for Osteoarthrosis		
	TOTAL SCORE		

Table No. 2 :Age wise distribution of 150 patients

S.No.	Age (in yrs.)	No. of Patients	%
1.	31-40	30	20%
2.	41-50	34	22.67%
3.	51-60	34	22.67%
4.	61-70	46	30.66%
5.	71-80	06	4 %
	Total	**150**	**100%**

Table No. 3: Sex wise distribution of 150 patients

S.No.	Sex	No. of Patients	%
1.	Male	66	44%
2.	Female	84	56%
3.	Transgender	0	0%
	Total	**150**	**100%**

Table no 4. Percentage wise score of pre and post value of structure teaching program

Level of Knowledge	Adequate		Moderate		Inadequate	
	No	**%**	**No**	**%**	**No**	**%**
Pre score	0	0	51	34	99	66
Post score	141	94	09	6%	0	0

Table no 5. Parameters of Structured Teaching Program (Pre And Post Score Value)

STP	N	Mean	Mean Diff.	SD±	't' test value	Degree of freedom	'p' value	Sig.
Pre Score	150	9.973	12.186	3.0907	32.768	298	<0.0001	ES
Post Score	150	22.159		2.318				

Parameters of Structured Teaching Program (Pre And Post Score Value)