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A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF AGNIKARMA AND KOLADI LEPA IN THE MANAGEMENT OF JANUSANDIGATA VATA

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ABSTRACT

Osteoarthritis is by far the most common form of arthritis. It shows a strong association with aging and is a major cause of pain and disability in the elderly. Osteoarthritis is the second commonest musculoskeletal problem in the world population (30%) after back pain (50%). Only 25-30% of OA are symptomatic even though prevalence rate is about 80% at the age of 65 years. In this study Agnikarma is taken which will be done by Panchaloha Shalaka externally over the most tender area of the affected knee joint compared with Koladi lepa which is already established. In this study, 40 patients who fulfilled the diagnostic criteria were selected randomly and assigned into 2 groups of 20 patients each. Group A as trail group,was treated with Agni karma on 1st day & on 15th day and Group B, as Control group were treated with koladi lepa application for 15 days once daily. Agnikarma is better in relieving pain/discomfort and tenderness whereas had no effect on change of gradation of OA. Koladilepa on the other hand could not provide comparatively better results than Agnikarma, but has given fairly encouraging results of 47.11% success rate and had no effect on change of gradation of OA.

Key words - Sandhigata vata, Agnikarma, Lepa, Osteoarthritis.

INTRODUCTION

Sandhigatavata is grouped under Vataja-Nanatmaja vyadhi. Dhathu kshaya, which is a part of aging process, is the main causative factor for this clinical entity. The process of degeneration sets in as one becomes old, as Vata dosha becomes predominant in this age. As a rule all **kevala vatavyadhis are yapya,** i.e. the condition can be managed (with various para surgical procedures and unctuous medication) but not cured.

Osteoarthritis is by far the most common form of arthritis. It shows a strong association with aging and is a major cause of pain and disability in the elderly. However, it has little or no effect on the life expectancy. Its high prevalence entails significant costs to society. Costs can be particularly significant for the elderly, who face potential loss of independence and who may need help with day-to-day activities. Traditionally, OA has been considered a disease of articular cartilage. The current concept holds that OA involves the entire joint organ, including the subchondral bone and synovium.

Osteoarthritis is the second commonest musculoskeletal problem in the world population (30%) after back pain (50%). Only 25-30% of OA are symptomatic even though prevalence rate is about 80% at the age of 65 years.

In the Medical science treatment of OA is aimed at-Reducing pain, maintaining mobility, minimizing disability. Modern treatment includes Analgesics, Anti-inflammatory drugs and also Corticosteroids are generally prescribed for this disease. But these drugs are not so

effective and pose increased risk of gastric erosion, hepatic and nephrotoxicity etc adverse effects. And also, it is clearly said that, current treatment of OA is purely to control symptoms, because there is no disease modifying Osteoarthrosis drug yet.

Agnikarma and Lepa(upanaha) are unique treatment procedures which are advocated easily andare cost effective with the encouraging results in pain management, improving mobilization of the joints and minimizing the disability of the joints successfully from ancient period till today, without adverse effects.

Thus an attempt is made to study management of sandhigatavata with Agnikarma and Koladi lepa, ancient but effective treatment procedures.

OBJECTIVES OF THE STUDY:

- To evaluate the Efficacy of Agnikarma in the management of Janusandigata vata.
- To evaluate the Efficacy of Koladi lepa in the management of Janusandigata vata.
- To evaluate the Significance of above treatments in the management of Janusandigata vata.

METHODOLOGY

SOURCE OF DATA

Patients with osteoarthritis of knee joint having the features of Janusandigata vata were selected from the OPD and IPD of SJIIM hospital Bangalore.

METHOD OF COLLECTION OF DATA

40 patients who fulfilled the diagnostic criteria were selected randomly for the clinical study. These 40 patients were divided into 2 groups,A and B consisting of 20 patients each randomly.

GROUP A

20 patients were subjected to Agnikarma by Panchaloha Shalaka externally over the most tender area of the affected knee joint 1st day & 15th day.

GROUP B

20 patients were subjected to application of Koladi lepa externally to the affected knee joint for 15 days. Rasonapanchaka 2gm internally after breakfast once daily, with anupana of ushnajala for 15 days was given for patients of both groups

INCLUSION CRITERIA

- Pain/discomfort
- Restricted movements of the knee joint
- Crepitus.
- Tenderness.
- Radiological evidence of Osteoarthritis of knee joint.
- Patients having Osteoarthritis for more than 6 months and less than 6 years between the age group 35 to 70 years.

EXCLUSION CRITERIA

- Patients suffering from other inflammatory joint disorders.
- Patients having any systemic disorders.
- Patients having body mass index less than 18 and more than 30.
- Patients with gross bony deformity.

TREATMENTN PROCEDURE

GROUP A

This group was treated with Agnikarma. Patient was asked to consume snigdha bhojana prior to procedure. Patient was asked lie down comfortably on the table. Affected knee was cleaned with triphala kashaya and dried .Then the most tender points [about6—8] were marked .Thepanchaloha shalaka was heated red hot .The marked point was burnt in one stroke, so that lakshanas of twak dagda namely shabda prbhava and durgandha were obtained. Procedure was repeated for other points. Once the procedure was completed, mixture of madhu and ghrita was applied over the dagdha vranas. Patient was asked to avoid contact of water to the knee. (Agnidagdha vranas) for 24 hours and to avoid over strain to the affected knee. The procedure was repeated on 15th day.

GROUP B

Patients of this group were treated with koladi lepa.Patient was asked to lie down/sit comfortably, affected knee was exposed and cleaned with triphala kashaya. Koladi lepa was prepared by adding 15-30gm of lepa churna to about 15-30ml of boiling water and mixed well to make it a fine paste and it was applied over the affected knee in warm condition.The lepa was wiped with a wet cloth before it was totally dry. The procedure was continued for 15 days.

ASSESSMENT CRITERIA

The changes in the subjective and objective parameter were assessed by scoring method. The patients were assessed for the positive signs of pain/discomfort by Lequesne et al. Before treatment, on15th day and on 30th day

SUBJECTIVE PARAMETERS

SL.NO	PARAMETERFINDINGS		POINTS
	PAIN/DISCOMFORT		
1	Pain or discomfort during rest	None	0
		Only on movement or in Certain position	1
		Without	2
2	Duration of morning stiffness or after getting up	<1minute	0
		>1minute but<15 minutes	1
		>15minutes	2
3	Standing30minutesincreases pain	No	0
		Yes	1
		None	0

4	Pain on walking	Only after walking some distance	1
		After initial ambulation and continued ambulation	2
5	Pain or discomfort after getting up from sitting without use of arms	No	0
		Yes	1
6	Maximum distance walked	Undefined	0
		>1kilo meter but limited	1
		About1kilo meterfor15 minutes	2
		About 500-900 meters(8-15 min)	3
7	Walking aids required	None	0
		1walkingstickorcrutch	1
		2walkingstickorcrutch	2

8	Able to climb up standard flight of stairs	Easily	0
		With mild difficulty	1
		With moderate difficulty	2
		With marked difficulty	3
		Impossible	4
9	Able to climb down standard flight of stairs	Easily	0
		With mild difficulty	1
		With moderate difficulty	2
		With marked difficulty	3
		Impossible	4
10	Able squat or bend at the knee	Easily	0
		With mild difficulty	1
		With moderated ifficulty	2
		With marked difficulty	3
		Impossible	4
11	Able to walk on uneven ground	Easily	0
		With mild difficulty	1
		With moderate difficulty	2
		With marked difficulty	3
		Impossible	4

OBJECTIVE PARAMETERS

1	Tenderness	No tenderness	0
		Patients complains of pain	1
		Patients complains of pain And winces	2
		Patients complains of pain And withdraws the joint	3
2	Crepitus	No crepitus	0
		Palpable crepitus	1
		Audible crepitus	2
3	Range of movement	Right knee joint(flexion)	
		Left knee joint(flexion)	
4	Time taken to walk50 meters Distance on even ground	In seconds with help of stop clock	

FOLLOW UP PERIOD

After the treatment schedule, patient was advised to visit O.P.D after 15 for observation and follow up for any recurrence or otherwise.

RESULTS

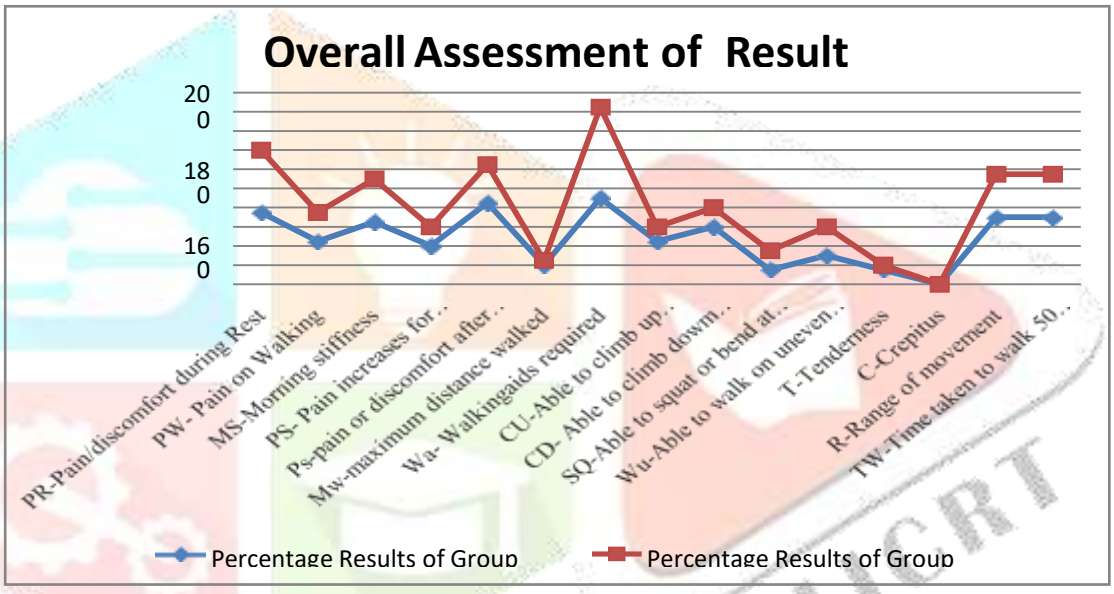
Showing overall results

Parameters	Mean % Result of Group A	Grade	Mean % Result of Group B	Grade
PR-Pain/discomfort during Rest	82.14	Ex	75	Gd
PW- Pain on Walking	67.64	Gd	56.25	Gd
MS-Morning stiffness	75.86	Ex	64.51	Gd
PS- Pain increases for standing 30 min	40	Av	20	Pr
Ps-pain or discomfort after getting up from sitting with out use of arms	85	Ex	36.84	Av
Mw-maximum distance walked	44.1	Av	38.71	Av
Wa- Walking aids required	0	-	0	-
CU-Able to climb up standard flight of stairs	75.47	Ex	64.70	Gd
CD- Able to climb down standard flight of stairs	80.95	Ex	65.30	Gd
SQ-Able to squat or bend at the knee	55.5	Gd	41.17	Av
Wu-Able to walk on uneven ground	60	Gd	57.89	Gd
T-Tenderness	65.30	Gd	50	Av
C-Crepitus	16.12	Pr	7.40	Pr
R-Range of movement	78.57	Ex	64.51	Gd

TW-Time taken to walk 50 meter distance on even grounds	78.57	Ex	64.51	Gd
Overall result	60.34	Gd	47.11	Av

Ex- Excellent Gd- Good Av – Average Pr – Poor

P value	0.1444
P value summary	ns



DISCUSSION

GROUP A – AGNIKARMA

The most tender points were marked on the affected area and samyak dagdha vrana was created with the help of the pointed tip of Panchaloha Shalaka. Mixture of madhu and grutha was applied over the wound. The procedure followed in this clinical work is the standard one, accepted evidently because of its proximity to the idea of Agnikarma in the Samhitas and results obtained were constantly encouraging. Hence this method was adopted.

GROUP B – KOLADI LEPA

Lepa or upanaha being a type of sweda and swedana is explained under principles of general line of treatment for vatavyadhis. Also the ingredients of Koladi lepa are vata kaphahara, vedana shamaka and snigdha by their properties. The aim of the study is to give relief to the patients from pain/ discomfort, restricted joint

movements, stiffness and also local snehana and swedana to alleviate vata. Hence Kolada lepa is selected for the study.

DISCUSSION ON OVERALL RESULT

On comparing the results of group A and grou B, it was seen that the P value for majority of the parameters showed a value P> 0.05.The overall result on a birds view seems to be slightly deviated towards Agnikarma, when compared to Koladilepa statistically. When we evaluate clinically, based on clinical parameters the improvement ranges from 20-85% for both groups on clinical parameters. This shows both the treatment procedures are effective, but the choice of treatment should be based on grading of the clinical parameters(signs and symptoms) and chronicity of the illness. For ex-if a patient comes with a parameter pain/discomfort after getting up from sitting without use of arms, having chronicity of 4-5years,then Agnikarma is fissible than Koladilepa. Most of the parameters if we evaluate clinically is favourable for Agnikarma than Koladilepa.

However it cannot be generalized Agnikarma is better than Koladilepa, because of small sample size the fact that Agnikarma can act as a good analgesic with minimal intervention is encouraging for researcher to take up more detailed work on the subject.

PROBABLE MODE OF ACTION

Agnikarma

- In Janusandhigata vata, there will be vata vriddhi,inturn there will be increase in sheeta guna,which causes stiffness of the joint, When Agnikarma is done , it increases ushnata and subsides sheetaguna and thus helps in relieving signs and symptoms of sandhigata vata.

- When Agnikarma is done, it probably increases the sthanika agni(local metabolism),by this the waste products(metabolites) which are produced gets excreted,which normalises the blood circulation thus resulting in reduction in intensity of pain.

- The red hot Shalaka carries heat from one end to another, and during conduction of heat some heat stored in previous part is conducted to next part. When such a heated Panchaloha shalaka is applied over the skin tissue for samyak dagdha vrana, stored heat is transferred from lohadi shalaka to skin tissue in the form of ushna, teekshna, sukshma and laghu guna neutralizes the sheeta guna of vata resulting in minimizing the severity of pain. Agnikarma also acts like a dosa dushya vighatana karaka, because ushna guna performs two functions, firstly by stimulating i.e utkleshana of dhatwaagni and due to this action saama dhathu(localised aama) is digested and secondly ushna guna dilates the channels of srotas. Hence srotavarodha is removed (cleaning the respective srotas /channel) It is hypothetically stated that Bindu type of Agnikarma which is practically used is probably capable to break down various cycles of painfull adhesions.

 It is hypothetically stated that after samyak dagdha some local antibodies or non- specific immuno-globins may act as a disease modifying activities.

 Heat produced by the Agnikarma, helps to achieve muscle relaxation and relieve muscle spasm with inflammation.

 Agnikarma may stimulate the sensory receptor lying in the muscle sends message to the brain, which stimulates the pituitary gland to release endorphins which in turn binds with opiate receptors in the pain cells to block the pain stimuli. Endorphin is a naturally occurring neuro-peptide and like morphine and other opiates it has a marked propensity for binding on the opiate receptors‖ of the pain cell in the brain.

 Raising the temperature of damaged tissue through red hot shalaka may speed up the metabolic process, improve circulation by vasodilatation, reduce oedema, accelerate repair, which can reduce painful stiffness in joints like arthritis. Thus Agnikarma may help in reducing the pain and stiffness of the joints.

 The pain receptors in the skin and other tissues all having free nerve endings. The red hot shalaka, which causes destruction of the free nerve endings, tend to close the ―gate‖ and prevent the sensory transmission of pain.

Effect of Agnikarma on sandhigata vata

- Increased metabolism.
- Increased blood circulations
- Relaxation to the muscle
- Decreases pain.

Koladilepa

 Lepa being a form of ekanga svedä, has an immediate local effect on pain and inflammation.Lepa or local svedä has beneficial therapeutic effects like alleviation of vata dosha as well as remission of pain.

 The formulation of Koladilepa contains herbs like vacha, kushta etc, that internally possess the properties like Ushna and Teekshna,which helps in alleviating the locally vitiated vata dosha.

 The unique qualities of the ingredients tend to improve local blood circulation on topical use.Thus helping in proper activities of the joint.

 The heat applied to the knee joint by way of lepa/local svedä, relieves the pain and relaxes the muscle, acting on the joint by its ushnagunas.

 The ingredients of Koladilepa are Shothahara, vatakaphahara and vedana shamaka and by these properties helps in relieving the laxanas of sandhigata vata.

Effect of Koladilepa on sandhigata vata

- Increased metabolism.
- Increased blood circulation
- Relaxation to the muscle
- Decreases pain.

CONCLUSION

- Management of JanusandhigataVata by Koladi lepa was found to be significantly less effective when compared with management of JanusandhigataVata by Agnikarma.
- The result shows that authenticity of the reference saying that Agnikarma is effectiveintheManagementofJanusandhigatavataisestablishedtotheextent of relieving pain/discomfort and tenderness. Treatment had no effect on change of gradation of OA.
- Koladi lepa on the other hand could not provide comparatively better results than Agnikarma, but has given fairly encouraging results of 47.11%success rate. However there was no change in the gradation of OA.
- Probably by increasing the duration of treatment of Koladi lepa and using internal medication that may help in samprapti vighatana, better results may be obtained by further studies.

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