

AN INDEGENOUS APPROACH TO MANAGE THE JANU SANDHI

GATA VATA (OSTEOARTHRITIS OF KNEE JOINT)

BY OSTEOCARE RASAYANA COMPOUND AND KNEE TRACTION



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ABSTRACT:

Janu sandhi gata vata is degenerative disease of the old age affecting both sexes with feminine predominance and weight bearing joints. *Doshas* have been described as *samavayi karana* of diseases in which *vata* has been suppose most powerful and causing maximum number *Nanatmaja Rogas* .Normal condition of *vata* may be supposed as sensory and motor controller including the various organs for their functions. This normalcy altered when men get old age or *vata* gets vitiated by its *prakopa* karanas, if gets accumulated in the *Janu sandhi* causes *Janu sandhi gata vata*. The complete remedy for this disease is still not available in modern medicine, by keeping in view a comparative clinical study was done on 30 patients , devided into 3 groups using combined formulations named as *Osteocare rasayana* compound orally with 10 patients (groupA) ,10 patients with only knee traction (groupB), 10 patients with *Osteocare rasayana* compound and knee traction(group C) and the kalka of *shigru,Eranda* and *Nirgundi* mixed with *sarshapa taila* has been applied to all patients it was found that *Osteocare rasayana* compound and knee traction showed effective results

Key words:*Janu sandhi gata vata, Osteo arthritis, Osteocare rasayana* compound.

INTRODUCTION:

Osteoarthritis, also known as degenerative joint disease, often thought to result from "wear and tear" on a joint. Joints appear larger, stiff and painful; usually feel worse with increased use throughout the day. As a result, the bone beneath the cartilage changes and develops bony overgrowth. The tissue that lines the joint can become inflamed, the ligaments can loosen, and the muscles around the joint can weaken. The patient feels pain and movement limitations when using the joint. Osteoarthritis can be correlated to *Sandhigata vata* when men get old age or by improper *ahara vihara* (which increases the *vata*) the vitiation of *vata* if get located in the *sandhi* leads to *sandhi vata*, most commonly affects *Janu sandhi*. The clinical features includes *sandhi*

shula,sotha,atopa,prasarana akunchana and *sandhi hanana* etc, by keeping above problem hence safe and effective conservative management was done with minimum cost the for the management of *Janusandhigata vata*.

- Heredity some genes you inherit from your parents may make you susceptible to developing osteoarthritis. Having these genes does not mean that you are certain to develop osteoarthritis, just that you are more likely to develop it than a person who does not have the genes.
- Being overweight People who are overweight are more likely to develop arthritis because the extra weight may strain the joints especially the knees and cause damage. If you already have osteoarthritis, being overweight can make

your symptoms worse. Avoiding excess weight gain or losing excess weight as you get older can help you prevent osteoarthritis or reduce your symptoms.

- Injury or overuse a serious injury to a joint, such as a fracture or an infection, can damage the tissue in the joint and increase your risk of developing osteoarthritis in that joint. For example, football and soccer players who have knee injuries are at greater risk of developing osteoarthritis later life. Overusing a joint can also increase your risk of osteoarthritis. For example, ballet dancers often develop arthritis in the joints in their feet after many years of excessive strain. Your risk may also be increased if you have a job that requires you to move a joint repeatedly. For example, people who operate jackhammers may be at increased risk of developing osteoarthritis in their hands.
- Lack of activity Underuse of your joints can be almost as damaging as too much activity. You are more likely to develop osteoarthritis if you rarely exercise or if you seldom vary the way you use your joints. Inactivity can cause a joint to become stiff and painful. A lack of activity can also reduce flexibility in your joints and weaken the muscles that support them, increasing the risk of injury.

MATERIALS AND METHODS:

30 Patients suffering from osteoarthritis of knee joint was selected Shalya O.P.D. irrespective of sex and occupation from N.I.A Jaipur and were randomly divided into three groups

Group A: Oral administration of *Osteocare Rasayana* compound

Group B: Only traction was given

Group C: Combination of *Osteocare Rasayana* compound and traction was given

All patients of three groups was covered with *kalka* of *Shigru*, *Eranda* and *Nirgundi* mixed with *Sarshapa taila*

PREPARATION OF THE DRUG:

- *Osteocare rasayana* compound has been prepared in N.I.A. pharmacy under the supervision of the scholar
- *kalka* was prepared daily from the fresh leaves

CONTENTS OF OSTEOCARE RASAYANA COMPOUND:

Rasna 1 part, *Ashwagandha* 1 part, *Shatavari* 1 part, *Bala* 1 part, *Madhu yasti* 1 part, *Arjuna twak* 1 part, *Punarnava* 1 part, *Laksha* 1 Part, *Shilajatu* 1/4 part, *Guggulu* 2 parts *Guggulu* was dissolved in the *Guduchi kwath* drug was administered in the form of granules.

ADMINISTRATION OF DRUG:

Dose: 4-6 gms TDS

Anupana: Milk

Duration of the treatment: 28 days

Physical medicine: Skin foot type Traction of knee joint about 2.5 kg -4kg has been used after *snehana* of knee joint with *kalka* and *Sarshapa taila* bandage

Duration of traction: For 28 days by intermitted method (7-15 minutes daily), six days in a week.

Post traction care: *Kalka* was applied and dressing was done after traction for eight hours daily patients were advised for rest and least movement and walking.

Inclusion criteria:

- Only patients with osteoarthritis of knee joint were taken

Exclusion criteria:

- Below 40 years age of the patients
- Secondary osteoarthritis of knee joint
- Rheumatic Arthritis

- Gout
- Diabetes
- Any other infectious diseases

ASSESSMENT CRITERIA:

Severity of pain:

- No pain at rest no pain while working (0%)
- Mild pain (1-25%) no pain at rest/mild pain tolerable pain while working (+)
- Moderate pain (26-50%) mild pain at rest/moderate tolerable pain at rest (++)
- Severe pain (51-75%) disturbance of pain due to pain/pain at rest/tolerable pain while walking (++++)
- Untolerable pain (76-100%) severe pain at rest (++++)

Deep grading tenderness:

- No pain on pressure (0%)
- Pain ful on pressure (1-25%) or (+)
- Patient winces with pain (26-50%) or (++)

- Patient winces and withdraw effected part (51-75%) or (++++)
- Patient does not the part to be touched (76-100%) or (++++)

Walking distance:

- Patient can walk up to 1km, without pain (0%)
- Patient can walk up to 500meters without pain (1-25%) or (+)
- Patient can walk up to 250meters without pain (26-50%) or (++)
- Patient fell on standing (51-75%) or (++++)
- Patient cannot stand (76-100%) or (++++)

Movement of the knee joint:

- 0-130 degree or (0%)
- 129-90 degree or (++)
- 89-30 degree (++++)
- 29-0 degree (++++)

1. EFFECT AND INTENCITY/SEVERITY OF PAIN 1ST week to 4TH week

The effect and	Duration	Groups	MeanScore		Relief%	S.D.	S.E.	t	P	Result
			BT	AT						
1	1 st Week	A	3.0	2.3	23.33	0.4830	0.1527	4.5841	<0.01	Significant
		B	2.8	2.1	25.00	0.4830	0.1527	4.5841	<0.01	Significant
		C	2.9	2.2	24.13	0.4830	0.1527	4.5841	<0.01	Significant
2	2 nd Week	A	3.0	1.6	46.33	0.6992	0.2211	6.3319	<0.001	H.significant
		B	2.8	1.7	39.28	0.3162	0.1011	10.8033	<0.001	H.significant
		C	2.9	1.5	48.23	0.5163	0.1633	8.5731	<0.001	H.significant
3	3 rd week	A	3.0	1.1	63.33	0.5656	0.1795	10.5849	<0.001	H.significant
		B	2.8	1.2	57.14	0.5163	0.1633	9.7979	<0.001	H.significant
		C	2.9	0.9	68.96	0.4714	0.1490	13.4228	<0.001	H.significant
4	4 th week	A	3.0	0.7	76.66	0.6749	0.2134	10.7778	<0.001	H.significant
		B	2.8	0.8	71.42	0.6666	0.2108	9.4876	<0.001	H.significant
		C	2.9	0.5	82.75	0.5163	0.1633	14.6968	<0.001	H.significant

The effect and intensity of pain after treatment shows in three groups the percentage of relief in group a in after the 4th week shows 76.66%, in group b 71.42% and in group c 82.75% of relief the

test shows significant effect in group A,B and C in 1st week and highly significant effect in 2nd, 3rd AND 4TH week of group A,B, and in group and C group in the all four weeks. the p valve is <0.001

2. Effect and intensity/ Tenderness on palpation 1ST week to 4TH week

Sr.No.	Duration	Groups	Mean Score		Relief %	S.D.	S.E.	T	P	Result
			BT	AT						
1	1 st Week	A	2.7	2.1	22.22	0.5163	0.1633	3.6722	<0.01	Significant
		B	2.5	1.9	24.00	0.5163	0.1633	3.6722	<0.01	Significant
		C	2.8	2.0	28.57	0.4216	0.1333	6.0015	<0.001	H.significant
2	2 nd Week	A	2.7	1.4	48.14	0.8232	0.2603	4.9942	<0.001	Significant
		B	2.5	1.3	48.00	0.4216	0.1333	9.0022	<0.001	H.significant
		C	2.8	1.4	50.00	0.5163	0.1632	8.5731	<0.001	H.significant
3	3 rd week	A	2.7	1.0	62.96	0.8232	0.2603	6.5309	<0.001	H.significant
		B	2.5	0.9	64.00	0.6992	0.2211	7.2365	<0.001	H.significant
		C	2.8	1.0	64.28	0.6324	0.2000	9.0	<0.001	H.significant
4	4 th week	A	2.7	0.6	77.77	0.7378	0.2333	9.0012	<0.001	H.significant
		B	2.5	0.7	72.00	0.6324	0.2000	9.0	<0.001	H.significant
		C	2.8	0.6	78.57	0.6324	0.2000	11.00	<0.001	H.significant

The effect and intensity of tenderness on palpation after treatment shows in three groups the percentage of relief in group a in after the 4th week shows 77.77%, in group b 72.00% and in group c 78.57% of

relief the test shows significant effect in 1st and 2nd week of group A, and B in 1st week and highly significant effect in remaining follow up weeks. The p value is <0.001

3. Effect and intensity /walking distance 1st week to 4th week

Sr.No.	Duration	Groups	Mean		Relief %	S.D.	S.E.	T	p	Result
			BT	AT						
1	1 st Week	A	2.3	1.6	30.43	0.4830	0.1527	4.5841	<0.01	Significant
		B	2.3	1.7	26.08	0.5163	0.1633	3.6742	<0.01	Significant
		C	2.4	1.5	37.50	0.3162	0.1000	9.0	<0.001	H.significant
2	2 nd Week	A	2.3	1.2	47.82	0.7378	0.2333	4.7149	<0.01	Significant
		B	2.3	1.5	34.78	0.4216	0.1333	6.0015	<0.001	H.significant
		C	2.4	1.1	54.16	0.4830	0.1527	8.5134	<0.001	H.significant
3	3 rd week	A	2.3	0.8	65.21	0.5270	0.1666	9.0036	<0.001	H.significant
		B	2.3	1.0	56.52	0.4830	0.1527	8.5134	<0.001	H.significant
		C	2.4	0.8	66.66	0.5163	0.1633	9.0036	<0.001	H.significant
4	4 th week	A	2.3	0.6	73.91	0.4830	0.1527	11.1329	<0.001	H.significant
		B	2.3	0.8	65.21	0.5270	0.1666	9.0036	<0.001	H.significant
		C	2.4	0.5	76.16	0.3162	0.1000	9.0	<0.001	H.significant

The effect and intensity of tenderness on palpation after treatment shows in three groups the percentage of relief in group a in after the 4th week shows 73.91% in group A, in group b 65.21% and in group C

76.16% of relief the test shows significant effect in 1st and 2nd week of group A, and highly significant effect in remaining follow up weeks in all groups. The p value is <0.001

4. Effect and intensity/ Degree of flexion 1ST week to 4TH week

Sr.No.	Duration	Groups	Mean Score		Relief %	S.D.	S.E.	T	P	Result
			BT	AT						
1	1 st Week	A	2.6	2.0	23.07	0.5163	0.1633	3.6742	<0.01	Significant
		B	2.4	1.6	33.33	0.4216	0.1333	6.0015	<0.001	H.significant
		C	3.1	2.3	25.80	0.4216	0.1333	6.0015	<0.001	H.significant
2	2 nd Week	A	2.6	1.5	42.15	0.5676	0.1795	6.1281	<0.001	H.significant
		B	2.4	1.3	45.83	0.5676	0.1795	6.1281	<0.001	H.significant
		C	3.1	1.5	51.61	0.5270	0.1666	9.0036	<0.001	H.significant
3	3 rd week	A	2.6	1.0	61.53	0.7241	0.2290	6.9868	<0.001	H.significant
		B	2.4	0.9	62.50	0.7071	0.2236	6.7084	<0.001	H.significant
		C	3.1	1.5	67.74	0.7378	0.2233	9.0012	<0.001	H.significant
4	4 th week	A	2.6	0.8	69.23	0.7888	0.2494	7.2178	<0.001	H.significant
		B	2.4	0.7	70.83	0.6749	0.2134	7.9662	<0.001	H.significant
		C	3.1	0.7	77.41	0.6992	0.2211	10.8548	<0.001	H.significant

The effect and intensity of tenderness on palpation after treatment shows in three groups the percentage of relief in group A in after the 4th week shows 69.23% in group A, in group B 70.83% and in group C 77.41% of relief. The test shows significant effect in 1st and week of group A, and highly significant effect in remaining follow up weeks in all groups. The p value is <0.001.

OVERALL RESULTS IN ALL GROUPS:

s.no	Group	Pain%	Tenderness%	Walking distance%	Flexion%	Average%
1	A	76.66	77.77	73.91	69.23	74.39
2	B	71.42	72	65.21	70.83	69.86
3	C	82.75	78.57	76.16	77.41	78.82

The results obtained from various types of uses in various groups conclude that the use of traction therapy with oral administration of *Osteocare rasayana* compound was found most beneficial to the patients having an average result of 78.72%, followed by group A(74.39%) in which only oral administration of *Osteocare rasayana* compound was done, while group B having only traction therapy has given the least result which is 69.86% only. The result obtained in group C can be explained as follows

DISCUSSION:

1. Effect of *Osteocare rasayana* compound

vata shamaka effect:

The kalpita yoga of *Osteocare rasayana* compound has many content like *Guggulu*, *Rasna*, *Ashwagandha*, *Madhuyasti*, *Laksha* etc which are having the *vata shamaka* properties use of *taila* is also result in to *shamana* of *vata* so it works as analgesic effect.

Fracture healing effect: The contents like *Laksha*, *Arjuna* etc healing of wear and tear (micro fractures) in bones and joints, which is natural phenomenon of *Janu sandhi*.

Anti inflammatory action: *Guggulu*, *Guduchi*, *Punarnava*, *Madhuyasti*, *Ashwagandha* are well known anti inflammatory drugs.

Effect on *Avarana* : As the symptoms of *janu sandhi gata vata* resemble to that

kaphavrita vyana, only *vata nashaka* drugs cannot provide total relief, thus *Arjuna, Yastimadhu and Guggulu* like drugs helps in curing the *avaraka kapha* exposing *Avrita vata*. This exposed *vata* now by the action of *vata nashaka* drugs get relieved.

Rasayana effect:

Rasayanas, they prevent the degeneration and enhances regeneration by this action the contents like *Ashwagandha, Shatavari, Bala, Guduchi, Punarnava*, they help in approximately total cure of *Janu sandhi gata vata*.

Effect of traction:

Traction is used as supportive clinical trial work. The most important radiological changes associated with the patients of *Janu sandhi gata vata* are Reduced the joint space, Formation of osteophytes, Formation of bony spur Degeneration of cartilage, thickened synovial membrane and decreased amount of synovial fluid all these result in severe pain in joints due to friction of articular surfaces of femur and tibia, reduced joint spaces decrease in decreases in flexion thickened synovial membrane and decreased amount of synovial fluid result in decreased in the movement.

Traction is applied in such patients it causes the separation of the main bones of the knee joint from one another which relieves the pain as well as gives space for the flexion, movements and which provides relieves the pain when it traction is used with the *Osteocare rasayana* compound.

Effect of kalka bandhana : The drugs of *kalka* are well known *vata shamaka* drugs *Eranda, Nirgundi* have analgesic effect also the *Sarshapa taila* used being a *taila*

is *vata shamaka* with additive effect like *medohara*.

Conclusion :

- The incidence of *Janu sandhi gata vata* was observed in age group 41-60 yrs about 66.67% because of degenerative changes takes place in bones after attaining certain age.
- As compared to sex females are found to be more about 56.67% because of postmenopausal hormonal imbalance also play major role.
- *Osteocare rasayana* compound is found to be effective remedy in un complicated chronic case of primary *Janu sandhi gata vata* and which is of a limited role in the complicated case in *Janu sandhi gata vata*.
- Traction of knee joint applied as a physical medicine has also found to be an effective procedure to overcome the reduced joint spaces and restricted movements.
- Best therapeutic effect was noted in the group where both were applied simultaneously. The fact tended to me to use this combination in the patients of *Janu sandhi gata vata* provides them an effective, low price, high yielding and easily available of drugs.

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